YAMAHA

AV Receiver

RX-V773
RX-V673

Owner's Manual

Read the supplied booklet "Safety Brochure" before using the unit.

English

CONFIGURATIONS

Configuring input sources (Input menu)

You can change the input source settings using the TV screen.

1 **Press ON SCREEN.**

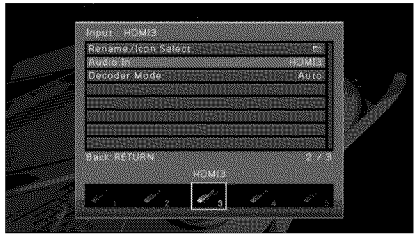
2 **Use the cursor keys to select "Input" and press ENTER.**

3 **Use the cursor keys (◁/▷) to select an input source to be configured and press the cursor key (△).**

The input source of the unit also changes.

- You can still switch the input source by using cursor keys (◁/▷) after Step 3.

4 **Use the cursor keys (△/▽) to select an item and press ENTER.**



- To return to the previous screen during menu operations, press RETURN.

5 **Use the cursor keys to select a setting and press ENTER.**

6 **To exit from the menu, press ON SCREEN.**

Input menu items

- Available items vary depending on the selected input source.

Item	Function	Page
Rename/Icon Select	Changes the input source name and icon.	82
Audio In	Combines the video jack of the selected input source with an audio jack of others.	82
Decoder Mode	Sets the format of digital audio playback to DTS.	82
Volume Interlock	Enables/disables volume controls from iTunes/iPod via AirPlay.	83
Video Out	Selects a video to be output with the audio input source.	83
DMC Control	Selects whether to allow a DLNA-compatible Digital Media Controller (DMC) to control playback.	83

Rename/Icon Select

Changes the input source name and icon displayed on the front display or TV screen.

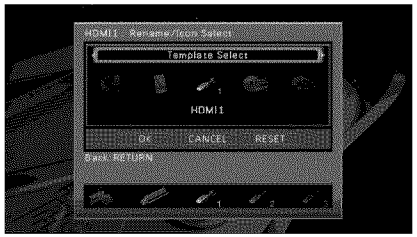
Input sources

HDMI 1–5, V-AUX, AV 1–6, AUDIO 1–2, USB, PHONO*

* RX-V773 only (except for U.S.A. and Canada models)

Setup procedure

1 Use the cursor keys (◁/▷) to select a template and press the cursor key (▽).

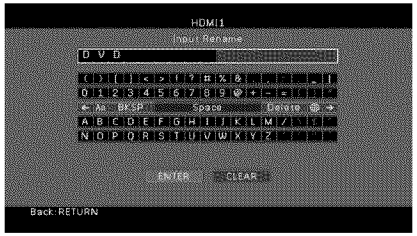


- You cannot change the template or icon for "USB" when an iPod is connected.

2 Use the cursor keys (◁/▷) to select an icon and press the cursor key (▽).

3 Press ENTER to enter the name edit screen.

4 Use the cursor keys and ENTER to rename and select "ENTER" to confirm the entry.



- To clear the entry, select "CLEAR".

5 Use the cursor keys to select "OK" and press ENTER.

- To restore the default setting, select "RESET".

6 To exit from the menu, press ON SCREEN.

Audio In

Combines the video jack of the selected input source with an audio jack of others. For example, use this function in the following cases.

- Connecting a playback device that supports HDMI video output, but not HDMI audio output
- Connecting a playback device that has component video jacks and analog stereo jacks (such as game consoles)

Input sources

HDMI 1–5, AV 1–2

Setup procedure

(To input audio through a digital optical jack)

Select "AV1" or "AV4" and connect the device to the unit's corresponding audio jacks with a digital optical cable.

(To input audio through a digital coaxial jack)

Select "AV2" or "AV3" and connect the device to the unit's corresponding audio jacks with a digital coaxial cable.

(To input audio through analog audio jacks)

Select "AV5", "AV6", "AUDIO1", or "AUDIO2", and connect the device to the unit's corresponding audio jacks with a stereo pin cable.

Decoder Mode

Sets the format of digital audio playback to "DTS".

For example, if the unit does not detect DTS audio and outputs noise, set "Decoder Mode" to "DTS".

Input sources

HDMI 1–5, V-AUX, AV 1–4

Settings

Auto (default)	Automatically selects an audio format to match the input audio signal.
DTS	Selects DTS only. (Other audio signals are not reproduced.)

Volume Interlock

Enables/disables volume controls from iTunes/iPod via AirPlay.

Input sources

AirPlay

Settings

Off	Disables volume controls from iTunes/iPod.
Limited (default)	Enables volume controls from iTunes/iPod within the limited range (-80 dB to 0 dB and mute).
Full	Enables volume controls from iTunes/iPod in the full range (-80 dB to +16.5 dB and mute).

Video Out

Selects a video to be output with the audio input source.

Input sources

TUNER, (network sources)

Settings

Off (default)	Does not output video.
HDMI 1–5, AV 1–6, V-AUX	Outputs video input through the corresponding video input jacks.

DMC Control

Selects whether to allow DLNA-compatible Digital Media Controller (DMC) to control playback.

Input source

SERVER

Settings

Disable	Does not allow DMCs to control playback.
Enable (default)	Allows DMCs to control playback.

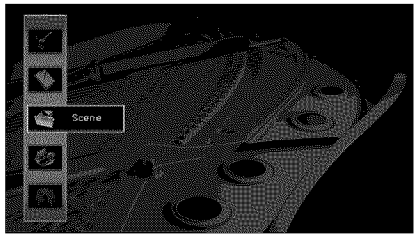
- A Digital Media Controller (DMC) is a device that can control other network devices through the network. When this function is enabled, you can control playback of the unit from DMCs (such as Windows Media Player 12) on the same network.

Configuring the SCENE function (Scene menu)

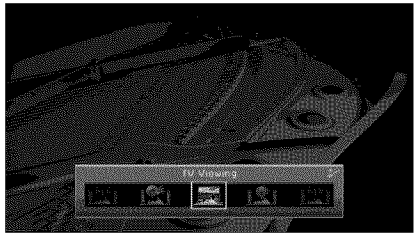
You can change the settings of the SCENE function (p.46) using the TV screen.

1 Press ON SCREEN.

2 Use the cursor keys to select "Scene" and press ENTER.



3 Use the cursor keys (◁/▷) to select a scene to be configured and press the cursor key (△).



- You can still switch the scene by using cursor keys (◁/▷) after Step 3.

4 **Use the cursor keys (△/▽) to select an item and press ENTER.**

5 **Use the cursor keys and ENTER to change the setting.**

6 **To exit from the menu, press ON SCREEN.**

Scene menu items

Item	Function	Page
Save	Registers the current settings in the selected scene.	84
Load	Loads the settings registered for the selected scene. You can also configure the SCENE link playback setting or view the scene assignments.	84
Rename/Icon Select	Changes the scene name and icon.	85
Reset	Restores the default settings for the selected scene.	85

Save

Registers the unit's current settings (input source, sound program/surround decoder, Compressed Music Enhancer on/off, and HDMI output jack [RX-V773 only]) in the selected scene.

- If you have changed the input assignment for a scene, you also need to change the external device assigned to the corresponding SCENE key (p.46).

Load

Loads the settings registered for the selected scene.

Select "DETAIL" to configure the SCENE link playback setting or view the scene assignments.

❑ Device Control

Recalls a selected scene and starts its playback on an external device connected to the unit via HDMI or on a Yamaha product connected to the REMOTE OUT jack. (SCENE link playback)

Settings

Off	Disables the SCENE link playback function.
HDMI Control	Enables SCENE link playback using HDMI Control signals. Select this if an HDMI Control-compatible device (such as a BD/DVD player) is connected to the unit via HDMI. It also turns on the TV if it supports HDMI Control.
IR: Yamaha BD/DVD 1	Enables SCENE link playback using remote control signals. Select this if a Yamaha BD/DVD player is connected to the REMOTE OUT jack.
IR: Yamaha BD/DVD 2	Enables SCENE link playback using remote control signals. Select this if a Yamaha BD/DVD player is connected to the REMOTE OUT jack and "IR: Yamaha BD/DVD 1" does not work properly.
IR: Yamaha CD	Enables SCENE link playback using remote control signals. Select this if a Yamaha CD player is connected to the REMOTE OUT jack.

Default

SCENE1 (BD/DVD), SCENE2 (TV): HDMI Control

SCENE3 (NET), SCENE4 (RADIO): Off

- To control playback of an HDMI Control-compatible device by SCENE link playback, you need to set "HDMI Control" in the "Setup" menu to "On" and perform the HDMI Control link setup (p.126).

❑ Detail

Displays the assignments of the selected scene.

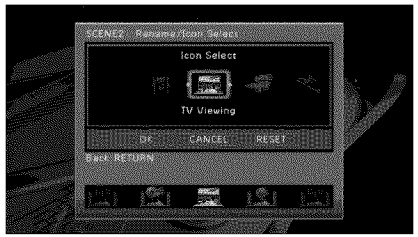
Input	Input source to be used
HDMI Output	(RX-V773 only) HDMI OUT jack to be used
Mode	Sound program/surround decoder to be used
Enhancer	Compressed Music Enhancer on/off

Rename/Icon Select

Changes the scene name and icon displayed on the front display or TV screen.

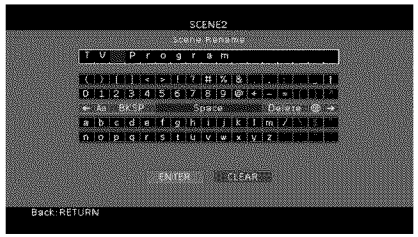
Setup procedure

1 **Use the cursor keys (◁/▷) to select an icon and press the cursor key (▽).**



2 **Press ENTER to enter the name edit screen.**

3 **Use the cursor keys and ENTER to rename and select "ENTER" to confirm the entry.**



- To clear the entry, select "CLEAR".

4 **Use the cursor keys to select "OK" and press ENTER.**

- To restore the default setting, select "RESET".

5 **To exit from the menu, press ON SCREEN.**

Reset

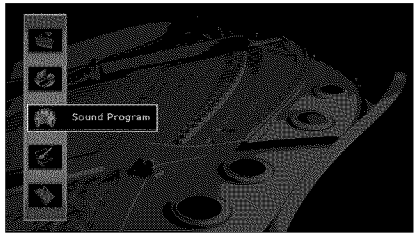
Restores the default settings (p.46) for the selected scene.

Configuring sound programs/surround decoders (Sound Program menu)

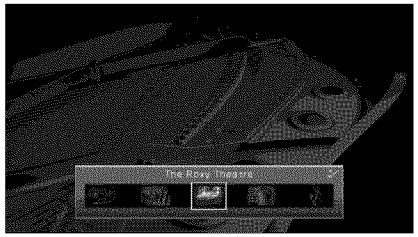
You can change the settings of the sound programs and surround decoders using the TV screen.

1 **Press ON SCREEN.**

2 **Use the cursor keys to select "Sound Program" and press ENTER.**

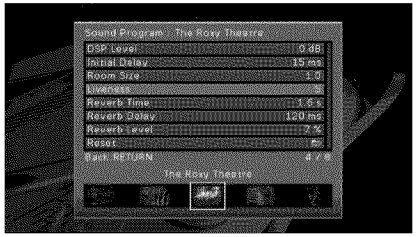


3 **Use the cursor keys (◁/▷) to select a sound program to be configured and press the cursor key (△).**



- You can still switch the sound program by using cursor keys (◁/▷) after Step 3.

4 **Use the cursor keys (△/▽) to select an item and press ENTER.**



- To return to the previous screen during menu operations, press RETURN.
- To restore the default settings for the selected sound program, select "Reset".

5 **Use the cursor keys to select a setting and press ENTER.**

6 **To exit from the menu, press ON SCREEN.**

Sound Program menu items

- Available items vary depending on the selected sound program or surround decoder.

Settings for sound programs

Item	Function	Settings
Decode Type	Selects a surround decoder to be used in combination with the selected sound program.	DPLIIx Movie (DPLII Movie), Neo:6 Cinema
DSP Level	Adjusts the sound field effect level.	-6 dB to +3 dB (default: 0 dB) Higher to enhance the sound field effect, and lower to reduce it.
Initial Delay	Adjusts the delay between the direct sound and presence sound field generation.	1 ms to 99 ms Higher to enhance the delay effect, and lower to reduce it.
Surround Initial Delay	Adjusts the delay between the direct sound and surround sound field generation.	1 ms to 49 ms Higher to enhance the delay effect, and lower to reduce it.
Surround Back Initial Delay	Adjusts the delay between the direct sound and surround back sound field generation.	
Room Size	Adjusts the broadening effect of the presence sound field.	0.1 to 2.0 Higher to enhance the broadening effect, and lower to reduce it.
Surround Room Size	Adjusts the broadening effect of the surround sound field.	
Surround Back Room Size	Adjusts the broadening effect of the surround back sound field.	
Liveness	Adjusts the loss of the presence sound field.	0 to 10 Higher to enhance the reflectivity, and lower to reduce it.
Surround Liveness	Adjusts the loss of the surround sound field.	
Surround Back Liveness	Adjusts the loss of the surround back sound field.	
Reverb Time	Adjust the decay time of the rear reverberant sound.	1.0 s to 5.0 s Higher to enrich the reverberant sound and lower to have clear sound.

Item	Function	Settings
Reverb Delay	Adjusts the delay between the direct sound and reverberant sound generation.	0 ms to 250 ms Higher to enhance the delay effect, and lower to reduce it.
Reverb Level	Adjusts the volume of the reverberant sound.	0% to 100% Higher to strengthen the reverberant sound, and lower to weaken it.

The following items are available when you select "2ch Stereo" or "7ch Stereo".

Sound program	Item	Function	Settings
2ch Stereo	**Direct**	Selects whether to automatically bypass the DSP and tone control circuits when an analog audio source is played back.	Auto (default), Off Select "Auto" to bypass the circuits (when both "Treble" and "Bass" are set to "Bypass").
7ch Stereo	**Level**	Adjusts the entire volume.	-5 to +5 (default: 0)
	Front / Rear Balance	Adjusts the front and rear volume balance.	-5 to +5 (default: 0) Higher to enhance the front side, and lower to enhance the rear side.
	Left / Right Balance	Adjusts the right and left volume balance.	-5 to +5 (default: 0) Higher to enhance the right side, and lower to enhance the left side.
	Height Balance	Adjust the height volume balance using the presence speakers.	0 to 10 (default: 5) Higher to enhance the upside, and lower to enhance the downside. (The presence speakers do not produce sounds when "Height Balance" is set to "0".)
	Monaural Mix	Enables/disables monaural sound output.	Off (default), On

- Available items in "7ch Stereo" vary depending on the speaker system being used.

Settings for decoders

The following items are available when you set "Decode Type" of "Surround Decoder" to "DPLIIx Music" or "Neo:6 Music".

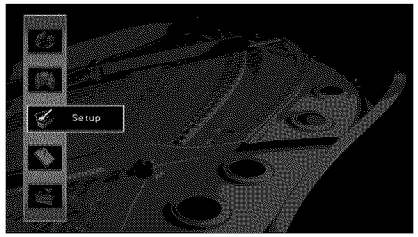
Decode Type	Item	Function	Settings
DPLIIx Music	**Panorama**	Adjusts the broadening effect of the front sound field.	Off (default), On Select "On" to wrap front right/left channel sounds around the field and generate a spacious sound field in combination with the surround sound field.
	Center Width	Adjusts the broadening effect of the center sound field.	0 to 7 (default: 3) Higher to enhance the broadening effect, and lower to reduce it (closer to center).
	Dimension	Adjusts the difference in level between the front and surround sound fields.	-3 to +3 (default: 0) Higher to strengthen the front sound field and lower to strengthen the surround sound field.
Neo:6 Music	**Center Image**	Adjusts the center orientation level (broadening effect) of the front sound field.	0.0 to 1.0 (default: 0.3) Higher to strengthen the center orientation level (less broadening effect) and lower to weaken (more broadening effect).

Configuring various functions (Setup menu)

You can configure the unit's various function with the menu displayed on the TV screen.

1 **Press ON SCREEN.**

2 **Use the cursor keys to select "Setup" and press ENTER.**



3 **Use the cursor keys (◁/▷) to select a menu.**

4 **Use the cursor keys (△/▽) to select an item and press ENTER.**

• To return to the previous screen during menu operations, press RETURN.

5 **Use the cursor keys to select a setting and press ENTER.**

6 **To exit from the menu, press ON SCREEN.**

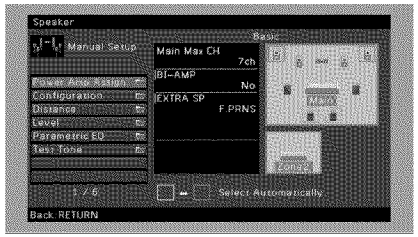
Setup menu items

Menu	Item			Function	Page
Speaker	Auto Setup			Automatically optimizes the speaker settings (YPAO).	37
	Manual Setup	Power Amp Assign		Selects a speaker system.	91
		Configuration	Front	Selects the size of the front speakers.	91
			Center	Selects whether or not a center speaker is connected and its size.	91
			Surround	Selects whether or not surround speakers are connected and their size.	91
			Surround Back	Selects whether or not surround back speakers are connected and their size.	92
			Front Presence	Selects whether or not presence speakers are connected.	92
			Subwoofer	Selects whether or not a subwoofer is connected and its phase.	92
			Extra Bass	Sets the speakers to produce the front channel low-frequency components.	92
			Bass Cross Over	Sets the lower limit of the low-frequency component that can be output from speakers whose size is set to "Small".	92
		Distance		Sets the distance between each speaker and listening position.	93
		Level		Adjusts the volume of each speaker.	93
		Parametric EQ		Adjusts the tone with an equalizer.	93
		Test Tone		Enables/disables the test tone output.	93
Sound	Lipsync	Delay Enable		Enables/disables the Lipsync adjustment for each input source.	94
		Auto/Manual Select		Selects the method to adjust the delay between video and audio output.	94
		Adjustment		Adjusts the delay between video and audio output manually.	94
	Dynamic Range			Selects the dynamic range adjustment method for bitstream audio (Dolby Digital and DTS signals) playback.	94
	Max Volume			Sets the maximum volume to prevent excessive loudness.	94
	Initial Volume			Sets the initial volume for when this receiver is turned on.	95
	Adaptive DSP Level			Selects whether to automatically adjust the CINEMA DSP effect level when the volume is adjusted.	95
Video	Video Mode			Enables/disables the video signal processing (resolution and aspect ratio).	95
HDMI	HDMI Control			Enables/disables HDMI Control. You can also configure the relevant settings (such as ARC and TV audio input).	96
	Audio Output			Selects a device to output audio.	97
	Standby Through			Select whether to output videos/audio (input through HDMI jacks) to the TV when the unit is in standby mode.	97

Menu	Item		Function	Page
Network	IP Address		Configures the network parameters (such as IP address).	98
	Network Standby		Selects whether to enable/disable the function that turns on the unit from other network devices.	98
	MAC Address Filter		Sets the MAC address filter to limit access to the unit from other network devices.	98
	Network Name		Edits the network name (the unit's name on the network) displayed on other network devices.	99
Multi Zone	Main Zone Set	Zone Rename	Changes the zone name (for main zone) displayed on the front display or TV screen.	99
	Zone2 Set	Max Volume	Sets the Zone2 maximum volume to prevent excessive loudness in the second zone.	100
		Initial Volume	Sets the Zone2 initial volume for when the unit is turned on.	100
		Zone Rename	Changes the zone name (for Zone2) displayed on the front display or TV screen.	100
	Party Mode Set		(RX-V773 only) Enables/disables switching to the party mode.	100
Function	Display Set	Dimmer (Front Display)	Adjusts the brightness of the front display.	100
		Short Message	Selects whether to display short messages on the TV screen when the unit is operated.	100
		Wall Paper	Selects the image to be used as wallpaper on the TV.	101
	Trigger Output	Trigger Mode	Specifies the condition for the TRIGGER OUT jack to function.	101
		Target Zone	Specifies the zone with which the TRIGGER OUT jack functions are synchronized.	101
	Memory Guard		Prevents accidental changes to the settings.	102
ECO	Auto Power Down		Sets the amount of time for the auto-standby function.	102
	ECO Mode		Enables/disables the eco mode (power saving mode).	102
Language			Select an on-screen menu language.	103

Speaker (Manual Setup)

Configures the speaker settings manually.



Power Amp Assign

Selects a speaker system.

In addition to the 5.1- or 7.1-channel speaker system, various speaker configurations are possible using the presence speakers, Zone2 speakers, or bi-amp connection.

Settings

Basic (default)	Select this option when you use a normal speaker system (not using Zone2 speakers or a bi-amp connection).
7ch +1ZONE	Select this option when you use Zone2 speakers (p.73) in addition to the speaker system in the main zone.
5ch BI-AMP	Select this option when you connect front speakers that support bi-amp connections (p.21).

Configuration

Configures the output characteristics of the speakers.

- When you configure the speaker size, select "Large" if the woofer diameter of your speaker is 16 cm (6-1/4") or larger or "Small" if it is smaller than 16 cm (6-1/4").

❑ Front

Selects the size of the front speakers.

Settings

Large	Select this option for large speakers. The front speakers will produce all of the front channel frequency components.
Small (default)	Select this option for small speakers. The subwoofer will produce front channel low-frequency components (configurable in "Bass Cross Over").

- "Front" is automatically set to "Large" when "Subwoofer" is set to "None".

❑ Center

Selects whether or not a center speaker is connected and its size.

Settings

Large	Select this option for large speakers. The center speaker will produce all of the center channel frequency components.
Small (default)	Select this option for small speakers. The subwoofer or front speakers will produce center channel low-frequency components (configurable in "Bass Cross Over").
None	Select this option when no center speaker is connected. The front speakers will produce center channel audio.

❑ Surround

Selects whether or not surround speakers are connected and their sizes.

Settings

Large	Select this option for large speakers. The surround speakers will produce all of the surround channel frequency components.
Small (default)	Select this option for small speakers. The subwoofer or front speakers will produce surround channel low-frequency components (configurable in "Bass Cross Over").
None	Select this option when no surround speakers are connected. The front speakers will produce surround channel audio. Virtual CINEMA DSP works when you select a sound program.

❑ Surround Back

Selects whether or not surround back speakers are connected and their sizes.

Settings

Large x1	Select this option when one large speaker is connected. The surround back speaker will produce all of the surround back channel frequency components.
Large x2	Select this option when two large speakers are connected. The surround back speakers will produce all of the surround back channel frequency components.
Small x1	Select this option when one small speaker is connected. The subwoofer or front speakers will produce surround back channel low-frequency components (configurable in "Bass Cross Over").
Small x2 (default)	Select this option when two small speakers are connected. The subwoofer or front speakers will produce surround back channel low-frequency components (configurable in "Bass Cross Over").
None	Select this option when no surround back speakers are connected. The surround speakers and subwoofer (or front speakers) will produce surround back channel audio.

- This setting is not available when "Power Amp Assign" is set to "5ch BI-AMP", or when "Surround" is set to "None".

❑ Front Presence

Selects whether or not presence speakers are connected.

Settings

Use (default)	Select this option when presence speakers are connected.
None	Select this option when no presence speakers are connected.

❑ Subwoofer

Selects whether or not a subwoofer is connected and its phase.

Settings

Use	Normal (default)	Select this option when a subwoofer is connected (phase not reversed). The subwoofer will produce LFE (low-frequency effect) channel audio and low-frequency components from other channels.
	Reverse	Select this option when a subwoofer is connected (phase reversed). The subwoofer will produce LFE (low-frequency effect) channel audio and low-frequency components from other channels.
None		Select this option when no subwoofer is connected. The front speakers will produce LFE (low-frequency effect) channel audio and low-frequency components from other channels.

- When the bass sound is lacking or unclear, switch the subwoofer phase.

❑ Extra Bass

Sets the speakers to produce the front channel low-frequency components.

Settings

Off (default)	Depending on the size of the front speakers, either the subwoofer or front speakers produce the front channel low-frequency components.
On	Both the front speakers and subwoofer produce the front channel low-frequency components.

- This setting is not available when "Subwoofer" is set to "None", or when "Front" is set to "Small".

❑ Bass Cross Over

Sets the lower limit of the low-frequency components that can be output from a speaker whose size is set to "Small". A frequency sound lower than the specified value will be produced from the subwoofer or front speakers

Settings

40 Hz, 60 Hz, 80 Hz (default), 90 Hz, 100 Hz, 110 Hz, 120 Hz, 160 Hz, 200 Hz

- If the volume and crossover frequency are adjustable on your subwoofer, set the volume to half and crossover frequency to maximum.

Distance

Sets the distance between each speaker and listening position so that sounds from the speakers reach the listening position at the same time. First, select the unit of distance from "Meter" or "Feet".

Choices

Front L, Front R, Center, Surround L, Surround R, Surround Back L, Surround Back R, Front Presence L, Front Presence R, Subwoofer

Setting range

0.30 m to 24.00 m (1.0 ft to 80.0 ft), *0.05 m (0.2 ft) increments

Default

3.00 m (10.0 ft)

Level

Adjusts the volume of each speaker.

Choices

Front L, Front R, Center, Surround L, Surround R, Surround Back L, Surround Back R, Front Presence L, Front Presence R, Subwoofer

Setting range

-10.0 dB to +10.0 dB (0.5 dB increments)

Default

0.0 dB

Parametric EQ

Adjusts the tone with an equalizer.

Settings

Manual	Select this option when you want to adjust the equalizer manually. For details, see "Manual equalizer adjustment".
YPAO:Flat	Adjusts individual speakers to achieve the same characteristics.
YPAO:Front	Adjusts individual speakers to achieve the same characteristics as the front speakers.
YPAO:Natural	Adjusts all speakers to achieve a natural sound.
Through	Does not use the equalizer.

- "YPAO:Flat", "YPAO:Front", and "YPAO:Natural" are available only when the measurement results of "Auto Setup" have already been saved (p.37). Press ENTER again to view the measurement results.

Manual equalizer adjustment

1. **Set "Parametric EQ" to "Manual" and press ENTER.**
2. **Press ENTER again to enter the edit screen.**
3. **Use the cursor keys to select a speaker and press ENTER.**

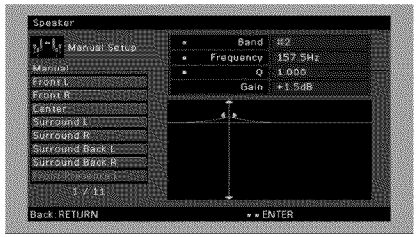
- To restore the default settings for all speakers, select "PEQ Data Clear" and then "OK".
- To copy the parametric equalizer values acquired with "Auto Setup" (p.37) to the "Manual" fields for fine adjustment, select "PEQ Data Copy" and then an equalizer type.

4. **Press ENTER to select an item.**

Band: Use the cursor keys (◁/▷) to select a center frequency from the preset 7 bands and the cursor keys (△/▽) to adjust the gain.

Frequency: Use the cursor keys (◁/▷) to adjust the center frequency of the selected band and the cursor keys (△/▽) to adjust the gain.

Q: Use the cursor keys (◁/▷) to adjust the Q factor (bandwidth) of the selected band and the cursor keys (△/▽) to adjust the gain.



Setting range

Gain: -20.0 dB to +6.0 dB

Center frequency: 31.3 HZ to 16.0 kHz

Q factor: 0.500 to 10.08

5. **To exit from the menu, press ON SCREEN.**

Test Tone

Enables/disables the test tone output. Test tone output helps you to adjust the speaker balance or equalizer while confirming its effect.

Settings

Off (default)	Does not output test tones.
On	Outputs test tones automatically when you adjust the speaker balance or equalizer.

Sound

Configures the audio output settings.

Lipsync

Adjusts the delay between video and audio output.

❑ Delay Enable

Enables/disables the Lipsync adjustment for each input source.

Choices

HDMI 1–5, AV 1–6, AUDIO 1–2

Settings

Disable	Disable the Lipsync adjustment for the selected input source.
Enable (default)	Enables the Lipsync adjustment for the selected input source.

❑ Auto/Manual Select

Selects the method to adjust the delay between video and audio output.

Setting range

Auto (default)	Adjusts the delay between video and audio output automatically when a TV that supports an automatic lipsync function is connected to the unit via HDMI. If necessary, you can fine-adjust the audio output timing in "Adjustment".
Manual	Select this option when you want to adjust the delay between video and audio output manually. Adjust the audio output timing in "Adjustment".

• "Auto/Manual Select" is automatically set to "Manual" depending on the TV connected to the unit.

❑ Adjustment

Adjusts the delay between video and audio output manually when "Auto/Manual Select" is set to "Manual". You can fine-adjust the audio output timing when "Auto/Manual Select" is set to "Auto".

Setting range

0 ms to 500 ms (1 ms increments)

Default

0 ms

• "Offset" shows the difference between automatic adjustment and fine adjustment.

Dynamic Range

Selects the dynamic range adjustment method for bitstream audio (Dolby Digital and DTS signals) playback.

Settings

Maximum (default)	Produces audio without adjusting the dynamic range.
Standard	Optimizes the dynamic range for regular home use.
Minimum/Auto	Sets the dynamic range for clear sound even at night or at low volumes. When playing back Dolby TrueHD signals, the dynamic range is automatically adjusted based on the input signal information.

Max Volume

Sets the maximum volume to prevent excessive loudness.

Setting range

-30.0 dB to +15.0 dB (5.0 dB increments), +16.5 dB

Default

+16.5 dB

Initial Volume

Sets the initial volume when the receiver is turned on.

Settings

Off (default)	Sets the level to the volume level of the unit when it last entered standby mode.
On	Sets at Mute or the specified volume level (-80 dB to +16.5 dB, 0.5 dB increments). (This setting works only when the initial volume is set lower than "Max Volume".)

Adaptive DSP Level

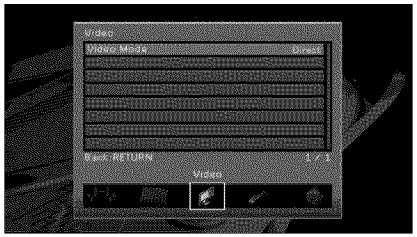
Selects whether to automatically adjust the CINEMA DSP effect level when the volume is adjusted.

Settings

Off	Does not adjust the effect level automatically.
On (default)	Adjusts the effect level automatically.

Video

Configures the video output settings.



Video Mode

Enables/disables the video signal processing (resolution and aspect ratio).

Settings

Direct (default)	Disables the video signal processing.
Processing	Enables the video signal processing. Select a resolution and an aspect ratio in "Resolution" and "Aspect".

- When "Video Mode" is set to "Direct", the unit transmits video signals with the least circuitry in order to reduce video output delay.

❑ Resolution

Selects a resolution to output HDMI video signals when "Video Mode" is set to "Processing".

Settings

Through	Does not convert the resolution.
Auto (default)	Selects a resolution automatically in accordance with TV resolution.
480p/576p, 720p, 1080i, 1080p, 4K	Output video signals with a selected resolution. (Only the resolutions supported by your TV are selectable.)

- If you need to select a resolution that is not supported by your TV, set "MON.CHK" (p.106) in the "ADVANCED SETUP" menu to "SKIP" and try again. (Note that the output video may not be displayed on your TV normally.)

❑ Aspect

Selects an aspect ratio to output HDMI video signals when "Video Mode" is set to "Processing".

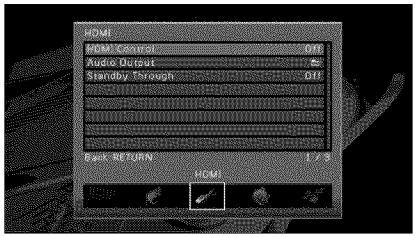
Settings

Through (default)	Does not convert the aspect ratio.
16:9 Normal	Outputs 4:3 video signals to a 16:9 TV with black bands on either side of the screen.

- This setting functions only when 480i/576i or 480p/576p signals are converted into 720p, 1080i, 1080p, or 2160p (4K) signals.

HDMI

Configures the HDMI settings.



HDMI Control

Enables/disables HDMI Control (p.126).

Settings

Off (default)	Disables HDMI Control.
On	Enables HDMI Control. Configure the settings in "TV Audio Input", "ARC" and "Standby Sync".

- To use HDMI control, you need to perform the HDMI Control link setup (p.126) after connecting HDMI Control-compatible devices.

❑ TV Audio Input

Selects an audio input jack of the unit to be used for TV audio input when "HDMI Control" is set to "On". The unit's input source automatically switches to TV audio when the TV input is switched to its built-in tuner.

Settings

AV 1–6, AUDIO 1–2

Default

AV 4

- When using ARC to input TV audio to the unit, you cannot use the input jacks selected here for connecting an external device because the input will be used for TV audio input.

❑ ARC

Enables/disables ARC (p.23) when "HDMI Control" is set to "On".

Settings

Off	Disables ARC.
On (default)	Enables ARC.

- You do not need to change this setting normally. In case noises are produced from the speakers connected to the unit because TV audio signals input to the unit via ARC are not supported by the unit, set "ARC" to "Off" and use the TV's speakers.

❑ Standby Sync

Select whether to use HDMI control to link the standby behavior of the TV and the unit when "HDMI Control" is set to "On".

Settings

Off	Does not set the unit to standby mode when the TV is turned off.
On	Sets the unit to standby mode when the TV is turned off.
Auto (default)	Sets the unit to standby mode when the TV is turned off only when the unit is receiving TV audio or HDMI signals.

Audio Output

Selects a device to output audio.

- This setting (except for "HDMI OUT2" [RX-V773 only]) is available only when "HDMI Control" is set to "Off".

❑ Amp

Enables/disables the audio output from the speakers connected to the unit.

Settings

Off	Disables the audio output from the speakers.
On (default)	Enables the audio output from the speakers.

❑ HDMI OUT1, HDMI OUT2 (RX-V773 only)
HDMI OUT (RX-V673 only)

Enables/disables the audio output from a TV connected to the HDMI OUT jack.

Settings

Off (default)	Disables the audio output from the TV.
On	Enables the audio output from the TV.

Standby Through

Select whether to output videos/audio (input through HDMI jacks) to the TV when the unit is in standby mode. If this function is set to "On", you can use the input selection keys (HDMI 1–5) to select an HDMI input even when the unit is in standby mode (the standby indicator on the unit blinks).

Settings

Off (default)	Does not output videos/audio to the TV.
On	Outputs videos/audio to the TV. (The unit consumes approximately 3 W of power.)

- This setting is available only when "HDMI Control" is set to "Off".

Network

Configures the network settings.

IP Address

Configures the network parameters (such as IP address).

❑ DHCP

Select whether to use a DHCP server.

Settings

Off	Does not use a DHCP server. Configure the network parameters manually. For details, see "Manual network settings".
On (default)	Uses a DHCP server to automatically obtain the unit's network parameters (such as IP address).

Manual network settings

1. **Set "DHCP" to "Off".**
2. **Use the cursor keys (△/▽) to select a parameter type and press ENTER.**

IP Address	Specifies an IP address.
Subnet Mask	Specifies a subnet mask.
Default Gateway	Specifies the IP address of the default gateway.
DNS Server (P)	Specifies the IP address of the primary DNS server.
DNS Server (S)	Specifies the IP address of the secondary DNS server.

3. **Use the cursor keys (◁/▷) to move the edit position and the cursor keys (△/▽) to select a value.**
4. **To confirm the setting, press ENTER.**
5. **To configure another network parameter, repeat steps 2 to 4.**
6. **To save the changes, use the cursor keys to select "OK" and press ENTER.**
7. **To exit from the menu, press ON SCREEN.**

Network Standby

Selects whether the unit can be turned on from other network devices (network standby).

Settings

Off (default)	Disables the network standby function.
On	Enables the network standby function. (The unit consumes approximately 2 W of power.)

MAC Address Filter

Sets the MAC address filter to limit access to the unit from other network devices.

❑ Filter

Enables/disables the MAC address filter.

Settings

Off (default)	Disables the MAC address filter.
On	Enables the MAC address filter. In "MAC Address 1–10", specify the MAC addresses of the network devices that will be permitted access to the unit.

❑ MAC Address 1–10

Specifies the MAC addresses (up to 10) of the network devices that will be permitted access to the unit when "Filter" is set to "On".

Procedure

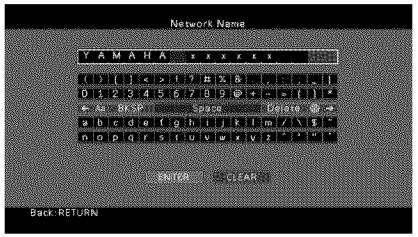
1. **Use the cursor keys (△/▽) to select "MAC Address 1–5" or "MAC Address 6–10" and press ENTER.**
2. **Use the cursor keys (△/▽) to select an MAC address number and press ENTER.**
3. **Use the cursor keys (◁/▷) to move the edit position and the cursor keys (△/▽) to select a value.**
4. **To confirm the setting, press ENTER.**
5. **To save the changes, use the cursor keys to select "OK" and press ENTER.**
6. **To exit from the menu, press ON SCREEN.**

Network Name

Edits the network name (the unit's name on the network) displayed on other network devices.

Procedure

1. **Press ENTER to enter the name edit screen.**
2. **Use the cursor keys and ENTER to rename and select "ENTER" to confirm the entry.**



- To clear the entry, select "CLEAR".

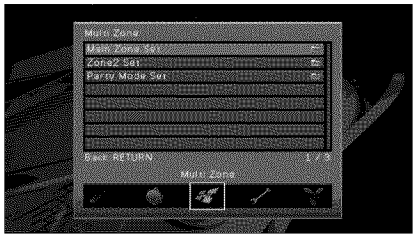
3. **Use the cursor keys to select "OK" and press ENTER.**

- To restore the default setting, select "RESET".

4. **To exit from the menu, press ON SCREEN.**

Multi Zone

Configures the multi zone settings.



Main Zone Set

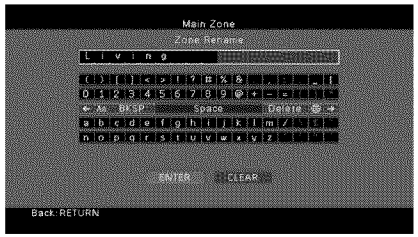
Configures the main zone setting.

❑ Zone Rename

Changes the zone name (for main zone) displayed on the front display or TV screen.

Procedure

1. **Press ENTER to enter the name edit screen.**
2. **Use the cursor keys and ENTER to rename and select "ENTER" to confirm the entry.**



- To clear the entry, select "CLEAR".

3. **Use the cursor keys to select "OK" and press ENTER.**

- To restore the default setting, select "RESET".

4. **To exit from the menu, press ON SCREEN.**

Zone2 Set

Configures the Zone2 settings.

❑ Max Volume

Sets the Zone2 maximum volume to prevent excessive loudness.

Setting range

-30.0 dB to +15.0 dB (5.0 dB increments), +16.5 dB

Default

+16.5 dB

- This setting is available only when "Power Amp Assign" (p.91) is set to "7ch +1ZONE".

❑ Initial Volume

Sets the Zone2 initial volume for when the unit is turned on.

Settings

Off (default)	Sets the level at the volume level of the unit when it last entered standby mode.
On	Sets at Mute or the specified volume level (-80 dB to +16.5 dB, 0.5 dB increments). (This setting works only when the initial volume is set lower than "Max Volume".)

- This setting is available only when "Power Amp Assign" (p.91) is set to "7ch +1ZONE".

❑ Zone Rename

Changes the zone name (for Zone2) displayed on the front display or TV screen.

You can change the zone name in the same manner as "Zone Rename" in "Main Zone Set" (p.99).

Party Mode Set

(RX-V773 only)

Enables/disables switching to the party mode (p.76).

Choice

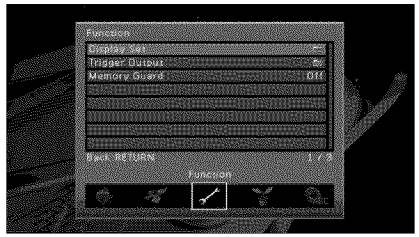
Target: Zone 2

Settings

Disable	Disables switching to the party mode.
Enable (default)	Enables switching to the party mode. You can turn on/off the party mode by pressing PARTY on the remote control.

Function

Configures the functions that make the unit easier to use.



Display Set

Configures the settings related to the front display and TV screen display.

❑ Dimmer (Front Display)

Adjusts the brightness of the front display.

Setting range

-4 to 0 (higher to brighten)

Default

0

- The front display may become dark when "ECO Mode" (p.102) is set to "On".

❑ Short Message

Selects whether to display short messages on the TV screen when the unit is operated (such as input selection and volume adjustment).

Settings

On (default)	Displays short messages on the TV screen.
Off	Does not display short messages on the TV screen.

❑ Wall Paper

Selects the image to be used as wallpaper on the TV.

Settings

Picture 1 (default), Picture 2, Picture 3	Displays the selected image on the TV screen when there is no video signal.
Gray	Displays a gray background on the TV screen when there is no video signal.

Trigger Output

Sets the TRIGGER OUT jack to function in sync with the power status of each zone or input switching.

❑ Trigger Mode

Specifies the condition for the TRIGGER OUT jack to function.

Settings

Power (default)	The TRIGGER OUT jack functions in sync with the power status of the zone specified with "Target Zone."
Source	The TRIGGER OUT jack functions in sync with the input switching in the zone specified with "Target Zone." An electronic signal is transmitted according to the setting made in "Source."
Manual	Select this to manually switch the output level for electronic signal transmission with "Manual."

Source

Specifies the output level of the electronic signal transmitted with each input, switching when "Trigger Mode" is set to "Source".

Choices

HDMI 1–5, AV 1–6, V-AUX, AUDIO 1–2, TUNER, PHONO*, (network sources), USB

* RX-V773 only (except for U.S.A. and Canada models)

Settings

Low	Stops the electronic signal transmission when you switch to the input source specified in this option.
High (default)	Transmits the electronic signal when you switch to the input source specified in this option.

Manual

Switches the output level for electronic signal transmission manually when "Trigger Mode" is set to "Manual". This setting can also be used to confirm proper function of the external device connected via the TRIGGER OUT jack.

Choices

Low	Stops the electronic signal transmission.
High (default)	Transmits the electronic signal.

❑ Target Zone

Specifies the zone with which the TRIGGER OUT jack functions are synchronized.

Settings

Main	When "Trigger Mode" is set to "Power," electronic signal transmission is synchronized with the power status of the main zone. When "Trigger Mode" is set to "Source," electronic signal transmission is synchronized with the input switching in the main zone.
Zone2	When "Trigger Mode" is set to "Power," electronic signal transmission is synchronized with the power status of Zone2. When "Trigger Mode" is set to "Source," electronic signal transmission is synchronized with the input switching in Zone2.
All (default)	When "Trigger Mode" is set to "Power," electronic signal transmission is synchronized with the power status of the main zone or Zone2. When "Trigger Mode" is set to "Source," electronic signal transmission is synchronized with the input switching in the main zone or Zone2.

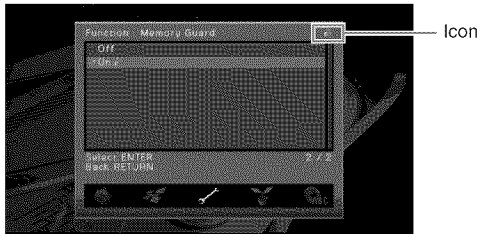
Memory Guard

Prevents accidental changes to the settings.

Settings

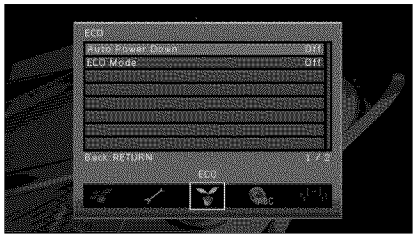
Off (default)	Does not protect the settings.
On	Protects the settings until "Off" is selected.

- When "Memory Guard" is set to "On", the lock icon (🔒) is displayed on the menu screen.



ECO

Configures the power supply settings.



Auto Power Down

Sets the amount of time for the auto-standby function. If you do not operate the unit for the specified time, the unit will automatically go into standby mode.

Settings

Off	Does not set the unit to standby mode automatically.
2 hours, 4 hours, 8 hours, 12 hours	Sets the unit to standby mode when you have not operated the unit for the specified time. For example, when "2 hours" is selected, the unit will switch to standby mode if you do not operate it for 2 hours.

Default

U.K. and Europe models: 8 hours

Other models: Off

- Just before the unit enters standby mode, "AutoPowerDown" appears and then countdown starts in the front display.

ECO Mode

Enables/disables the eco (power saving) mode.

When the eco mode is enabled, you can reduce the unit's power consumption.

Settings

Off (default)	Disables the eco mode.
On	Enables the eco mode.

- The new setting will take effect after the unit is restarted.
- When "ECO Mode" is set to "On", the front panel display may become dark.
- If you want to play audio at high volume, set "ECO Mode" to "Off".

Language

Select an on-screen menu language.

Settings

English (default)	English
日本語	Japanese
Français	French
Deutsch	German
Español	Spanish
Русский	Russian
中文	Chinese

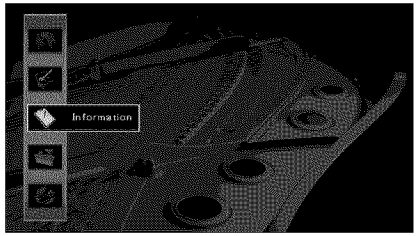
- The information on the front display is provided in English only.

Viewing information about the unit (Information menu)

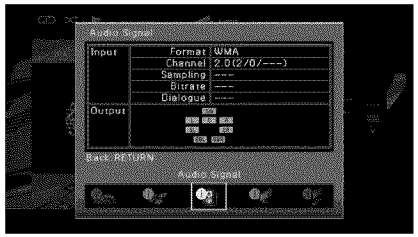
You can view information about the unit using the TV screen.

1 Press ON SCREEN.

2 Use the cursor keys to select "Information" and press ENTER.



3 Use the cursor keys (◁/▷) to select an information type.



4 To exit from the menu, press ON SCREEN.

Types of information

Audio Signal

Displays information about the current audio signal.

Input	Format	Audio format of the input signal
	Channel	The number of source channels in the input signal (front/surround/LFE) For example, "5.1 (3/2/0.1)" means 5.1ch in total (3 front channels, 2 surround channels, and LFE).
	Sampling	The number of samples per second of the input digital signal
	Bitrate	The amount of data per second of the input bitstream signal
	Dialogue	The dialogue normalization level of the input bitstream signal
Output		The speaker terminals from which signals are output

- Even when the unit is set to output bitstream signals directly, the signal may be converted depending on the specifications and settings of the playback device.

Video Signal

Displays information about the current video signal.

HDMI Signal	Presence or absence of HDMI signal input/output
HDMI Resolution	Resolutions of input signal (analog or HDMI) and output signal (HDMI)
Analog Resolution	Resolutions of input signal (analog) and signal output at the MONITOR OUT jacks (analog)

HDMI Monitor

Displays information about the TVs connected to the HDMI OUT jacks.

Interface	TV interface
Video Resolution	Resolutions supported by the TV

- (RX-V773 only)
  Use the cursor keys (△/▽) to switch between "OUT1" and "OUT2".

Network

Displays the network information on the unit.

IP Address	IP address
Subnet Mask	Subnet mask
Default Gateway	The IP address of the default gateway
DNS Server (P)	The IP address of the primary DNS server
DNS Server (S)	The IP address of the secondary DNS server
MAC Address	MAC address
Network Name	Network name (the unit's name on the network)
Status	The connection status of the NETWORK jack

System

Displays the system information on the unit.

Remote ID	The unit's remote control ID setting (p.105)
TV Format	The unit's video signal type (p.106)
Speaker Impedance	The speaker impedance setting of the unit (p.105)
System ID	System ID number
Firmware Version	The version of firmware installed on the unit

- If the unit detects a newer firmware over the network, "!" (exclamation mark) appears at the upper right of the "Information" and "System" icons, and the corresponding message will be displayed in this screen. You can update the unit's firmware by pressing ENTER in this screen and following the procedure in "Updating the unit's firmware" (p.113).

Zone

Displays information about Zone2.

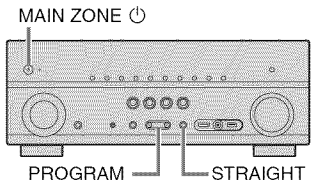
Input	The input source selected for Zone2
Volume	The volume setting for Zone2

Configuring the system settings (ADVANCED SETUP menu)

Configure the system settings of the unit while viewing the front display.

1 **Set the unit to standby mode.**

2 **While holding down STRAIGHT on the front panel, press MAIN ZONE ⏻.**



3 **Press PROGRAM to select an item.**

4 **Press STRAIGHT to select a setting.**

5 **Press MAIN ZONE ⏻ to set the unit to standby mode and turn it on again.**

The new settings take effect.

ADVANCED SETUP menu items

Item	Function	Page
SP IMP.	Changes the speaker impedance setting.	105
REMOTE ID	Selects the unit's remote control ID.	105
TU	(Asia and General models only) Changes the FM/AM tuning frequency setting.	106
TV FORMAT	Switches the video signal type.	106
MON.CHK	Removes the limitation on HDMI video output.	106
INIT	Restores the default settings.	106
UPDATE	Updates the firmware.	107
VERSION	Checks the version of firmware currently installed on the unit.	107

Changing the speaker impedance setting (SP IMP.)

Change the unit's speaker impedance settings depending on the impedance of the speakers connected.

Settings

6 Ω MIN	Select this option when you connect 6-ohm speakers to the unit. You can also use 4-ohm speakers as the front speakers.
8 Ω MIN (default)	Select this option when you connect 8-ohm or higher speakers to the unit.

Selecting the remote control ID (REMOTE ID)

Change the unit's remote control ID so that it matches the remote control's ID (default: ID1). When using multiple Yamaha AV receivers, you can set each remote control with a unique remote control ID for its corresponding receiver.

Settings

ID1 (default), ID2

Changing the remote control ID of the remote control

Perform each of the following steps within 1 minute. Otherwise, the setting will be automatically canceled.

1 **Press CODE SET on the remote control.**

2 **Press RECEIVER.**

3 **Use the numeric keys to enter "5019" (ID1) or "5020" (ID2).**

Once the remote control ID is registered successfully, SOURCE blinks twice.

If it blinks six times, registration failed. Repeat from Step 1.

- The registered remote control codes (p.108) are not cleared even if you change the remote control ID.

Changing the FM/AM tuning frequency setting (TU)

(Asia and General models only)

Change the FM/AM tuning frequency setting of the unit depending on your country or region.

Settings

FM100/AM10	Select this when you want to adjust the FM frequency by 100-kHz steps and AM by 10-kHz steps.
FM50/AM9 (default)	Select this when you want to adjust the FM frequency by 50-kHz steps and AM by 9-kHz steps.

Switching the video signal type (TV FORMAT)

Switch the video signal type of the unit so that it matches to the format of your TV.

Settings

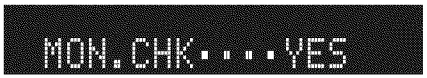
NTSC, PAL

Default

U.S.A., Canada, Korea and General models: NTSC

Other models: PAL

Removing the limitation on HDMI video output (MON.CHK)



The unit automatically detects resolutions supported by a TV connected to the HDMI OUT jack.

Disable the monitor check function if you want to specify a resolution in "Resolution" (p.95) when the unit cannot detect the TV's resolution or when you want to specify a different resolution than the detected resolution.

Settings

YES (default)	Enables the monitor check function. (Outputs video signals with a resolution supported by the TV only.)
SKIP	Disables the monitor check function. (Outputs video signals with a specified resolution regardless of compatibility with the TV.)

- Reset to "YES" if the unit becomes inoperable because video from the unit cannot be displayed on the TV after "MON.CHK" has been set to "SKIP".

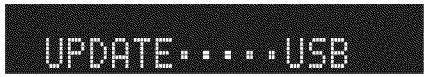
Restoring the default settings (INIT)

Restores the default settings for the unit.

Choices

VIDEO	Restores the default settings for video configurations.
ALL	Restores the default settings for the unit.
CANCEL	Does not perform an initialization.

Updating the firmware (UPDATE)



New firmware that provides additional features or product improvements will be released as needed. Updates can be downloaded from our website. If the unit is connected to the Internet, you can download the firmware via the network. For details, refer to the information supplied with updates.

Firmware update procedure

Do not perform this procedure unless firmware update is necessary. Also, make sure you read the information supplied with updates before updating the firmware.

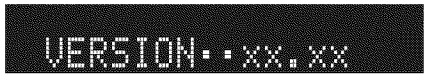
1 Press STRAIGHT repeatedly to select "USB" or "NETWORK" and press INFO to start firmware update.

Choices

USB	Update the firmware using a USB memory device.
NETWORK	Update the firmware via the network.

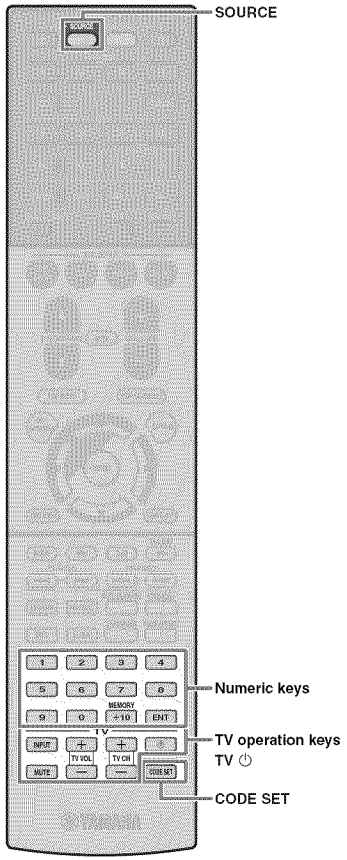
- If the unit detects newer firmware over the network, the corresponding message will be displayed after ON SCREEN is pressed. In this case, you can also update the unit's firmware by following the procedure in "Updating the unit's firmware" (p.113).

Checking the firmware version (VERSION)



Check the version of firmware currently installed on the unit.

- You can also check the firmware version in "System" (p.104) in the "Information" menu.



Controlling external devices with the remote control

You can use the unit's remote control to operate external devices (such as BD/DVD players) if you have registered the remote control code of the external device.

- You cannot control an external device that does not have a remote control sensor.
- Ensure that the remote control ID of the external device is set to "ID1". If any other ID is selected, the remote control operations may not work properly.
- If the unit's remote control is without batteries for more than 2 minutes, the registered codes may be cleared. If this happens, insert new batteries and register the codes again.

- Under the unit's default settings, the amplifier code (Yamaha: 5098) is set for all the input selection keys. With this setting, you can control HDMI Control-compatible devices connected to the unit with the remote control. (This function may not work depending on the specification of the external device.)

Registering the remote control code for a TV

You can use the unit's remote control to operate a TV if you have registered its remote control code.

- You can also register your TV's remote control code to the unit's input selection keys (p.109). This would allow you to use the cursor keys or numeric keys to operate the TV (this function may not be available on some TV models).
- (RX-V773 [China, Korea, U.K. and Europe models] only) You can also assign a function to each key using the learning function (p.110).

1 Use "Remote Control Code Search" in the CD-ROM to find your TV's remote control code.

- If there are multiple remote control codes, register the first code in the list. If that does not work, try the other codes.

2 Press CODE SET.

SOURCE blinks twice.

Perform each of the following steps within 1 minute. Otherwise, the setting will be canceled. If this happens, repeat from Step 2.

3 Press TV ⏻.

4 Use the numeric keys to enter the 4-digit remote control code.

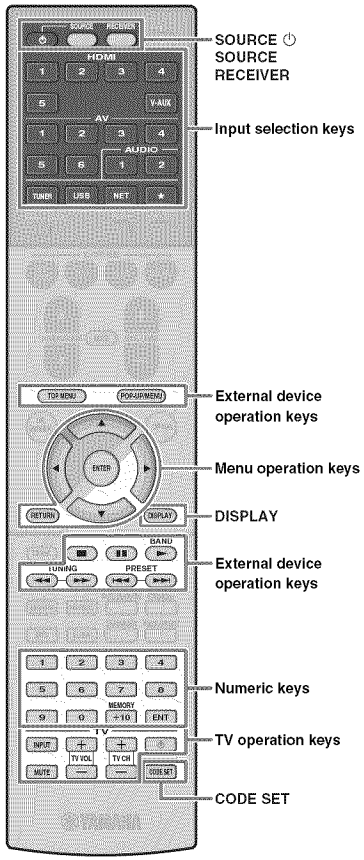
Once the remote control code is successfully registered, SOURCE blinks twice.

If it blinks six times, registration has failed. Repeat from Step 2.

TV operations

Once you have registered the remote control code for your TV, you can control it using the TV operation keys, regardless of the input source selected on the unit.

TV operation keys	INPUT	Switches the video inputs of the TV.
	MUTE	Mutes the audio output of the TV.
	TV VOL	Adjust the volume of the TV.
	TV CH	Switch the channels of the TV
	TV ⏻	Turns on/off the TV.



Registering the remote control codes for playback devices

You can use the unit's remote control to operate playback devices if you have registered their remote control codes. You can also use the input selection keys to change the playback devices that are controlled by the remote control, because their remote control codes are assigned to the input selection keys.

- (RX-V673 and RX-V773 [U.S.A. and Canada models] only)
  If you assign the remote control code for an external device to the star (★) key, you can operate the device with the remote control without switching the input source after pressing the star key.
- (RX-V773 [China, Korea, U.K. and Europe models] only)
  You can also assign a function to each key using the learning function (p.110).

1 Use "Remote Control Code Search" in the CD-ROM to find the remote control code for your playback device.

- If there are multiple remote control codes, register the first code in the list. If that does not work, try the other codes.

2 Press CODE SET.

SOURCE blinks twice.

Perform each of the following steps within 1 minute. Otherwise, the setting will be canceled. If this happens, repeat from Step 2.

3 Press the input selection key.

For example, press HDMI 1 to set the remote control code for the playback device connected to the HDMI 1 jack.

4 Use the numeric keys to enter the 4-digit remote control code.

Once the remote control code is registered successfully, SOURCE blinks twice.

If it blinks six times, registration has failed. Repeat from Step 2.

- For details on how to register a remote control code to a SCENE key, refer to "Configuring scene assignments" (p.46).

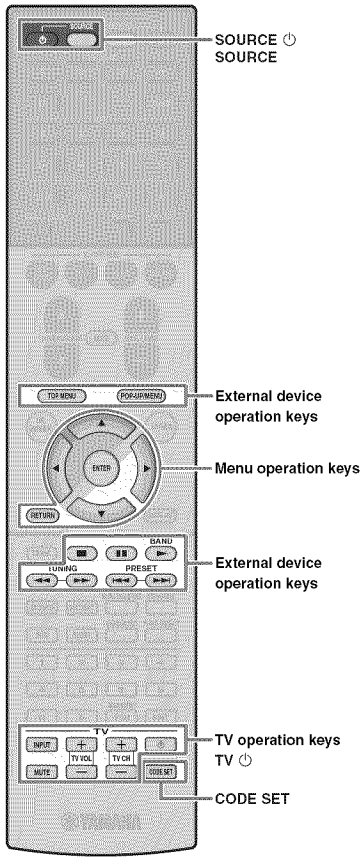
Playback device operations

Once you have registered the remote control code for your playback device, you can control it using the following keys after selecting the input source or scene.

- By pressing SOURCE or RECEIVER, you can switch the devices (the unit or external device) that are operated by the menu operation keys, DISPLAY and numeric keys. You can operate the unit after pressing RECEIVER (lights up in orange), and an external device after pressing SOURCE (lights up in green). For example, if you register the remote control code of your external device on TUNER, you can operate the unit's built-in FM/AM radio after pressing RECEIVER and the external device after pressing SOURCE.

SOURCE ⏻		Turns on/off the playback device.
Menu operation keys	Cursor keys	Select an item.
	ENTER	Confirms a selected item.
	RETURN	Returns to the previous screen.
DISPLAY		Switches information on the display.
External device operation keys	TOP MENU	Displays the top menu.
	POP-UP/MENU	Displays the pop-up menu.
	■	Stops playback.
	▮▮	Stops playback temporarily.
	►	Starts playback of the selected song/video.
	◄◄ / ►►	Searches forward/backward (by holding down).
	⏮ / ⏭	Skips forward/backward.
Numeric keys		Enter numerical values.
TV operation keys		Control the TV (p.108).

- These keys work only if the corresponding function is available on your playback device and if the device can be operated with an infrared remote control.



Programming from other remote controls (learning)

(RX-V773 [China, Korea, U.K. and Europe models] only)

The remote control of the unit can receive remote control signals from other remote controls and learn the remote control operation. If you cannot find a remote control code for your playback device or if any key on the remote control does not work after you register the remote control code, use the learning function to assign a function to each key.

1 Press CODE SET.

SOURCE blinks twice.

Perform each of the following steps within 1 minute. Otherwise, the setting will be canceled. If this happens, repeat from Step 1.

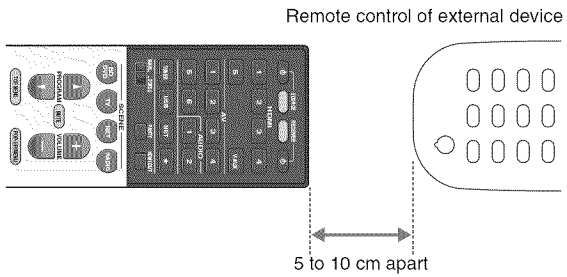
2 Press one of the following keys depending on the type of your device.

For playback device: press the input selection key (corresponding to the input jacks where the device is connected).

For TV: press TV ⏻.

3 Use the numeric keys to enter "9990".

4 Aim the infrared transmitters of the remote controls at each other.



5 Perform the following steps within 10 seconds.

① On this unit, press one of the following keys to which you want to assign a function.

For playback device: SOURCE ⏻, menu operations keys, external device operation keys

For TV: TV operation keys

② On the external device, press the key from which the operation is learned.

Once the operation is learned successfully, SOURCE blinks twice.

If it blinks six times, learning has failed. Repeat Step 5.

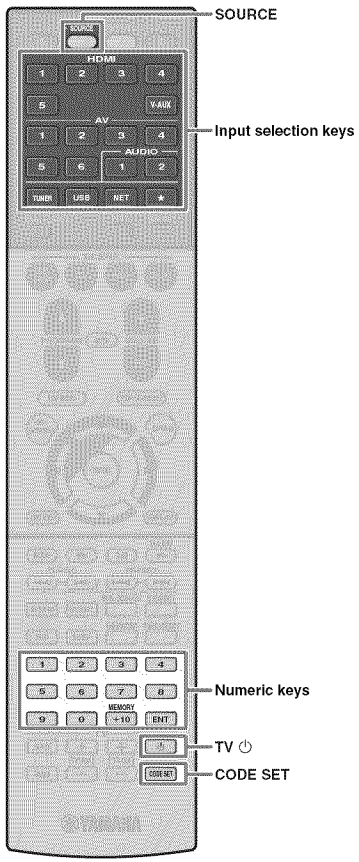
6 Repeat step 5 until all desired operations are learned.

7 Press CODE SET.

SOURCE blinks once.

Note

- If you press RECEIVER in step 2, you can assign functions of an external receiver to the menu operation keys, external device operation keys or numeric keys. However, it makes these keys to control the unit impossible. If you need to restore the remote control code for the unit, perform the following steps.
  ① Press CODE SET.
  ② Press RECEIVER.
  ③ Use the numeric keys to enter "9992".



Clearing functions learned from other remote controls

(RX-V773 [China, Korea, U.K. and Europe models] only)

Clearing the assignment for each key

1 **Press CODE SET.**

SOURCE blinks twice.

Perform each of the following steps within 1 minute. Otherwise, the setting will be canceled. If this happens, repeat from Step 1.

2 **Press one of the following keys to select the device for which key assignments will be cleared.**

For playback device: press the input selection key.

For TV: press TV ⏻.

3 **Use the numeric keys to enter "9991".**

4 **Press the key that you want to reset.**

Once the key assignment is cleared successfully, SOURCE blinks twice.

If it blinks six times, clearing failed. Repeat from Step 2.

5 **Repeat step 4 until all desired key assignments are cleared.**

6 **Press CODE SET.**

SOURCE blinks once.

Clearing the assignments for each input source

1 **Press CODE SET.**

SOURCE blinks twice.

Perform each of the following steps within 1 minute. Otherwise, the setting will be canceled. If this happens, repeat from Step 1.

2 **Press one of the following keys to select the device for which key assignments will be cleared.**

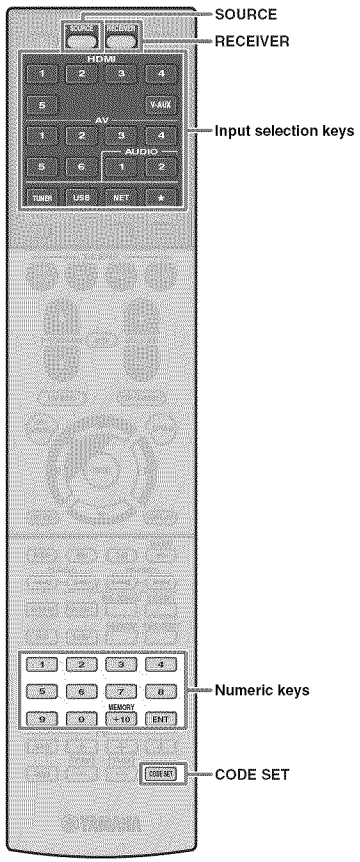
For playback device: press the input selection key.

For TV: press TV ⏻.

3 **Use the numeric keys to enter "9992".**

Once the key assignment is cleared successfully, SOURCE blinks twice.

If it blinks six times, clearing failed. Repeat from Step 1.



Resetting remote control codes

You can reset a remote control code registered to each input selection key.

1 **Press CODE SET.**

SOURCE blinks twice.

Perform each of the following steps within 1 minute. Otherwise, the setting will be canceled. If this happens, repeat from Step 1.

2 **Press the input selection key.**

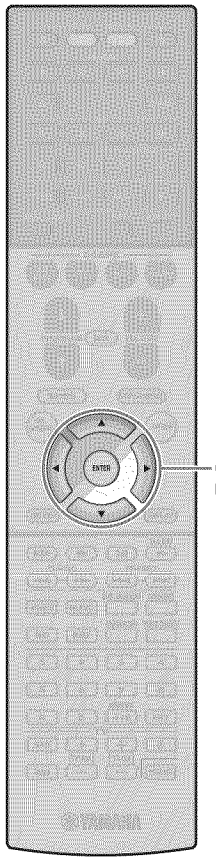
3 **Use the numeric keys to enter "5098".**

Once the remote control code is reset successfully, SOURCE blinks twice.

If it blinks six times, resetting has failed. Repeat from Step 1.

To reset the remote control to factory default settings

① Press CODE SET.
② Press RECEIVER.
③ Use the numeric keys to enter "9981".



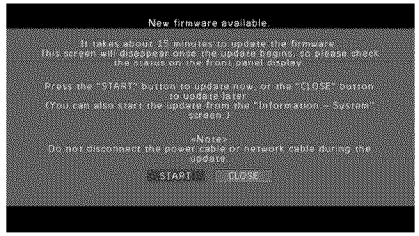
Updating the unit's firmware

New firmware that provides additional features or product improvements will be released as needed. If the unit is connected to the Internet, you can download the firmware via the network and update it.

> **Note**
>
> - Do not operate the unit or disconnect the power cable or network cable during firmware update. Firmware update takes about 20 minutes or more (depending on your Internet connection speed).

- You can also update the firmware using the USB memory device from the "ADVANCED SETUP" menu (p.107).

A firmware update is available if the following message is displayed after ON SCREEN is pressed.


New firmware available.
It takes about 15 minutes to update the firmware.
This screen will disappear once the update begins, so please check the status on the front panel display.
Press the "START" button to update now, or the "CLOSE" button to update later.
(You can also start the update from the "Information – System" screen.)
<Note>
Do not disconnect the power cable or network cable during the update.
START
CLOSE

1 Read the on-screen description.

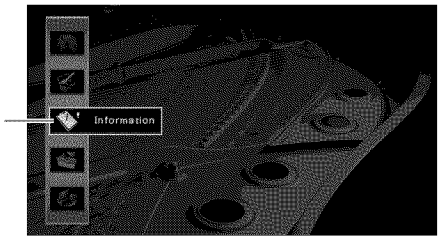
2 To start the firmware update, use the cursor keys to select "START" and press ENTER.

The on-screen display turns off.

3 If "Update Success Please Power Off!" appears on the front display, press MAIN ZONE ⏻ on the front panel.

The firmware update is complete.

- If you want to update the firmware later, select "CLOSE" in Step 2. "!" (exclamation mark) appears at the upper right of the "Information" and "System" icons, and a message will be displayed in the "System" screen (p.104). You can update the unit's firmware by pressing ENTER in the "System" screen.



APPENDIX

Frequently asked questions

The new speaker system does not provide an ideal sound balance...

If you have changed speakers or have a new speaker system, use "Auto Setup" to optimize the speaker settings again (p.37). If you want to adjust the speaker settings manually, use "Manual Setup" in the "Setup" menu (p.91).

Since we have small children, we want to set limitations on the volume control...

If a small child accidentally operates the controls on the main unit or remote control, the volume may suddenly increase. This may also cause injury or damage the unit or speakers. We recommend using "Max Volume" in the "Setup" menu to set the maximum volume level for the unit in advance (p.94). You can also set the maximum volume for Zone2 (p.100).

I am occasionally startled by a sudden loud sound when turning on the unit...

By default, the volume level when the unit last entered standby mode is automatically applied. If you want to fix the volume, use "Initial Volume" in the "Setup" menu to set the volume to be applied when the receiver is turned on (p.95). You can also set the initial volume for Zone2 (p.100).

I made HDMI connections but HDMI Control does not work at all...

To use HDMI Control, you need to perform the HDMI Control link setup (p.126). After connecting HDMI Control-compatible devices (such as BD/DVD players) to the unit, enable HDMI Control on each device and perform the HDMI Control link setup. This setup is required every time you add a new HDMI Control-compatible device to your system. For information on how HDMI Control works between your TV and playback devices, refer to the instruction manuals for each device.

I want to turn off the on-screen messages displayed during operations...

By default, short messages are displayed on the TV screen when the unit is operated (such as input selection and volume adjustment). If the short messages bother you when you are watching movies or sports, configure "Short Message" (p.100) in the "Setup" menu to turn off the short messages.

I want to prevent accidental changes to the settings...

You can protect the settings configured on the unit (such as speaker settings) by utilizing "Memory Guard" in the "Setup" menu (p.102).

The unit's remote control is simultaneously controlling another Yamaha product as well as the unit...

When using multiple Yamaha products, the remote control may work on another Yamaha product or another remote control may work on the unit. If this happens, register different remote control IDs for the devices that you want to control with each remote control (p.105).

Troubleshooting

Refer to the table below when the unit does not function properly.

If the problem you are experiencing is not listed below or if the instructions below do not help, turn off the unit, disconnect the power cable, and contact the nearest authorized Yamaha dealer or service center.

First, check the following:

① The power cables of the unit, TV and playback devices (such as BD/DVD players) are connected to AC wall outlets securely.

② The unit, subwoofer, TV and playback devices (such as BD/DVD players) are turned on.

③ The connectors of each cable are securely inserted in to jacks on each device.

Power and system

Problem	Cause	Remedy
The power does not turn on.	The protection circuitry has been activated three times consecutively. When the unit is in this condition, the standby indicator on the unit blinks if you try to turn on the power.	As a safety precaution, capability to turn on the power is disabled. Contact your nearest Yamaha dealer or service center to request repair.
The power does not turn off.	The internal microcomputer has frozen, due to an external electric shock (such as lightning or excessive static electricity) or to a drop in the power supply voltage.	Hold down MAIN ZONE ⏻ on the front panel for more than 10 seconds to initialize and reboot the unit.
The power turns off (standby mode) immediately.	The unit was turned on while a speaker cable was shorted.	Twist the bare wires of each speaker cable firmly and reconnect to the unit and speakers (p.20).
The unit enters standby mode automatically.	The sleep timer worked.	Turn on the unit and start playback again.
	The auto-standby function kicked in because the unit was not used for the specified time.	To disable the auto-standby function, set "Auto Power Down" in the "Setup" menu to "Off" (p.102).
	The speaker impedance setting is incorrect.	Set the speaker impedance to match your speakers (p.105).
	The protection circuitry has been activated because of a short circuit.	Twist the bare wires of each speaker cable firmly and reconnect to the unit and speakers (p.20).
The unit is not reacting.	The internal microcomputer is frozen, due to an external electric shock (such as lightning or excessive static electricity) or to a drop in the power supply voltage.	Hold down MAIN ZONE ⏻ on the front panel for more than 10 seconds to initialize and reboot the unit.

Audio

Problem	Cause	Remedy
No sound.	Another input source is selected.	Select an appropriate input source with the input selection keys.
	Signals that the unit cannot reproduce are being input.	Some digital audio formats cannot be played back on the unit. To check the audio format of the input signal, use "Audio Signal" in the "Information" menu (p.104).
	The cable connecting the unit and playback device is defective.	If there is no problem with the connection, replace with another cable.
The volume cannot be increased.	The maximum volume is set.	Use "Max Volume" in the "Setup" menu to adjust the maximum volume (p.94).
	A device connected to the output jacks of the unit is not turned on. (This may happen due to the nature of AV receivers.)	Turn on all devices connected to the output jacks of the unit.
No sound is coming from a specific speaker.	The playback source does not contain a signal for the channel.	To check it, use "Audio Signal" in the "Information" menu (p.104).
	The currently selected sound program/decoder does not use the speaker.	To check it, use "Test Tone" in the "Setup" menu (p.93).
	Audio output of the speaker is disabled.	Perform "Auto Setup" (p.37) or use "Configuration" in the "Setup" menu to change the speaker settings (p.91).
	The volume of the speaker is set too low.	Perform "Auto Setup" (p.37) or use "Level" in the "Setup" menu to adjust the speaker volume (p.93).
	The speaker cable connecting the unit and the speaker is defective.	If there is no problem with the connection, replace with another speaker cable.
	The speaker is malfunctioning.	To check it, replace with another speaker. If the problem persists, the unit may be malfunctioning.
No sound is coming from the surround back speaker.	The extended surround is disabled.	Use "Extended Surround" in the "Option" menu to select a decoder to be used (p.80).
No sound is coming from the subwoofer.	The playback source does not contain LFE or low-frequency signals.	To check it, set "Extra Bass" in the "Setup" menu to "On", in order to output the front channel low-frequency components from the subwoofer (p.92).
	Subwoofer output is disabled.	Perform "Auto Setup" (p.37) or set "Subwoofer" in the "Setup" menu to "Use" (p.92).
	The volume of the subwoofer is too low.	Adjust the volume on the subwoofer.
	The subwoofer has been turned off by its auto-standby function.	Disable the auto-standby function of the subwoofer or adjust its sensitivity level.
No sound from the playback device (connected to the unit with HDMI).	The TV does not support HDCP (High-bandwidth Digital Content Protection).	Refer to the instruction manuals for the TV and check the TV's specifications.
	The unit is set not to output audio input through HDMI jacks from the SPEAKERS terminals.	In "Audio Output" in the "Setup" menu, set "Amp" to "On" (p.97).
	The number of devices connected to the HDMI OUT jack exceeds the limit.	Disconnect some of the HDMI devices.

Problem	Cause	Remedy
No sound from the TV (when HDMI Control is used).	The TV is set to output audio from the TV speakers.	Change the audio output setting on your TV so that the TV audio is output from the speakers connected to the unit.
	(If the TV is connected to the unit with an audio cable) The TV audio input setting does not match the actual connection.	Use "TV Audio Input" in the "Setup" menu to select the correct audio input jack (p.96).
	(If you are trying to use ARC) ARC is disabled on the unit or TV.	Set "ARC" in the "Setup" menu to "On" (p.97). Also, enable ARC on the TV.
Only the front speakers work on multichannel audio.	The playback device is set to output 2-channel audio (such as PCM) only.	To check it, use "Audio Signal" in the "Information" menu (p.104). If necessary, change the digital audio output setting on the playback device.
Noise/hum is heard.	The unit is too close to another digital or radio frequency device.	Move the unit further away from the device.
	The cable connecting the unit and playback device is defective.	If there is no problem with the connection, replace with another cable.
The sound is distorted.	The volume of the unit is too high.	Turn down the volume. If "ECO Mode" is set to "On", set it to "Off" (p.102).
	A device connected to the unit's output jacks is not turned on. (This may happen due to the nature of AV receivers.)	Turn on all devices connected to the unit's output jacks.

Video

Problem	Cause	Remedy
No video.	Another input source is selected on the unit.	Select an appropriate input source with the input selection keys.
	Another input source is selected on the TV.	Switch the TV input to display the video from the unit.
	The video signal output from the unit is not supported by the TV.	Set "MON.CHK" in the "ADVANCED SETUP" menu to "YES" (p.106).
	The cable connecting the unit and TV (or playback device) is defective.	If there is no problem with the connection, replace with another cable.
No video from the playback device (connected to the unit with HDMI).	The input video signal (resolution) is not supported by the unit.	To check the information about the current video signal (resolution), use "Video Signal" in the "Information" menu (p.104). For information about video signals supported by the unit, see "HDMI signal compatibility" (p.127).
	The TV does not support HDCP (High-bandwidth Digital Content Protection).	Refer to the instruction manuals for the TV and check the TV's specifications.
	The number of devices connected to the HDMI OUT jack is over the limit.	Disconnect some of the HDMI devices.
The menu of the unit is not displayed on the TV.	The TV is not connected to the unit via HDMI.	You can display the menu of the unit on the TV only when they are connected with an HDMI cable. If necessary, use an HDMI cable to connect them (p.23 to 26).
	Another input source is selected on the TV.	Switch the TV input to display the video from the unit (HDMI OUT jack).

FM/AM radio

Problem	Cause	Remedy
FM radio reception is weak or noisy.	There is multi-path interference.	Adjust the FM antenna height or orientation, or place it in a different location.
	Your area is too far from the FM station transmitter.	Set "FM Mode" in the "Option" menu to "Mono" to select monaural FM radio reception (p.80).
		Use an outdoor FM antenna. We recommend using a sensitive multi-element antenna.
AM radio reception is weak or noisy.	The noises may be caused by fluorescent lamps, motors, thermostats, or other electrical equipment.	It is difficult to completely eliminate noise. It may be reduced by using an outdoor AM antenna.
Radio stations cannot be selected automatically.	Your area is too far from the FM station transmitter.	Select the station manually (p.53).
		Use an outdoor antenna. We recommend using a sensitive multi-element antenna.
	The AM radio signal is weak.	Adjust the AM antenna orientation.
		Select the station manually (p.53).
		Use an outdoor AM antenna. Connect it to the ANTENNA (AM) jack together with the supplied AM antenna.
AM radio stations cannot be registered as presets.	Auto Preset has been used.	Auto Preset is for registering FM radio stations only. Register AM radio stations manually (p.54).

USB and network

Problem	Cause	Remedy
The unit does not detect the USB device.	The USB device is not connected to the USB jack securely.	Turn off the unit, reconnect your USB device, and turn the unit on again.
	The file system of the USB device is not FAT16 or FAT32.	Use a USB device with FAT16 or FAT32 format.
Folders and files in the USB device cannot be viewed.	The data in the USB device is protected by the encryption.	Use a USB device without an encryption function.
The network feature does not function.	The network parameters (IP address) have not been obtained properly.	Enable the DHCP server function on your router and set "DHCP" in the "Setup" menu to "On" on the unit (p.98). If you want to configure the network parameters manually, check that you are using an IP address which is not used by other network devices in your network (p.98).
The unit does not detect the PC.	The media sharing setting is not correct.	Configure the sharing setting and select the unit as a device to which music contents are shared (p.65).
	Some security software installed on your PC is blocking the access of the unit to your PC.	Check the settings of security software installed on your PC.
	The unit and PC are not in the same network.	Check the network connections and your router settings, and then connect the unit and the PC to the same network.

Problem	Cause	Remedy
The files in the PC cannot be viewed or played back.	The files are not supported by the unit or the media server.	Use the file format supported by both the unit and the media server. For information about the file formats supported by the unit, see "Playing back music stored on media servers (PCs/NAS)" (p.65).
The Internet radio cannot be played.	The selected Internet radio station is currently not available.	There may be a network problem at the radio station, or the service may have been stopped. Try the station later or select another station.
	The selected Internet radio station is currently broadcasting silence.	Some Internet radio stations broadcast silence at certain of times of the day. Try the station later or select another station.
	Access to the network is restricted by the firewall settings of your network devices (such as the router).	Check the firewall settings of your network devices. The Internet radio can be played only when it passes through the port designated by each radio station. The port number varies depending on the radio station.

Remote control

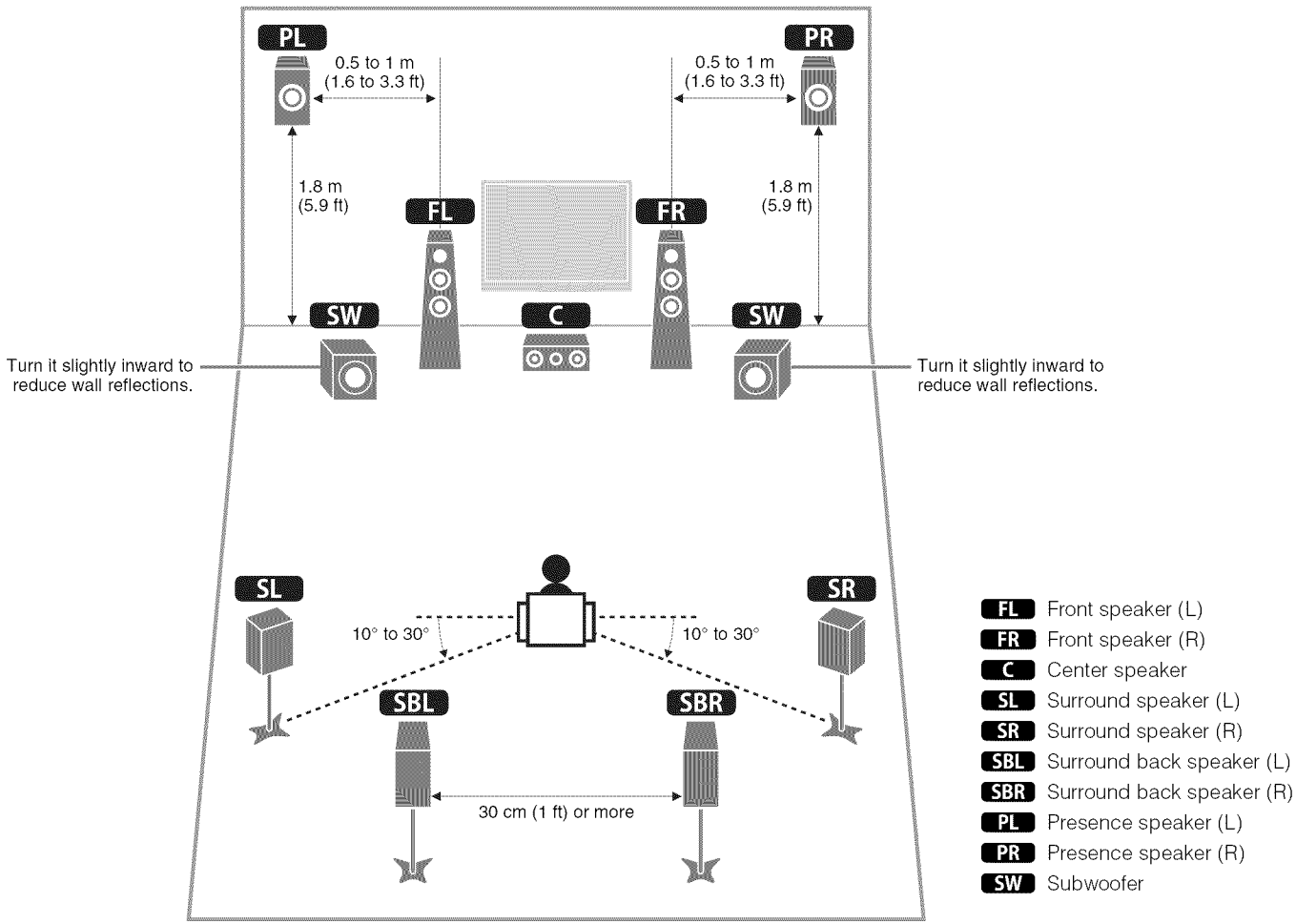
Problem	Cause	Remedy
The unit cannot be controlled using the remote control.	The unit is out of the operating range.	Use the remote control within the operating range (p.5).
	The batteries are weak.	Replace with new batteries.
	The unit's remote control sensor is exposed to direct sunlight or strong lighting.	Adjust the lighting angle, or reposition the unit.
	The remote control is set to control external devices.	Press RECEIVER to set the remote control to control the unit (the key lights up in orange).
	The remote control IDs of the unit and the remote control are not identical.	Change the remote control ID of the unit or the remote control (p.105).
External devices cannot be controlled using the remote control.	The remote control is set to control the unit.	Press SOURCE to set the remote control to control external devices (the key lights up in green).
	The corresponding remote control code is not set properly.	Set the remote control code again (p.108). Even if the remote control code is registered properly, some products may not respond to the remote control.
The remote control does not learn new functions. (RX-V773 [China, Korea, U.K. and Europe models] only)	The batteries of the remote control of the unit and/or the external device are weak.	Replace with new batteries.
	The distance between the two remote controls is not appropriate.	Place the remote controls at a proper distance (p.110).
	The signal coding or modulation of the other remote control is not compatible with the remote control.	Learning is impossible in this case.
	Memory capacity is full.	Clear unnecessary assignments to free some memory space for new functions (p.111).

Error indications on the front display

Message	Cause	Remedy
Access denied	Access to the PC is denied.	Configure the sharing settings and select the unit as a device to which music contents are shared (p.65).
Access error	The unit cannot access the USB device.	Turn off the unit and reconnect your USB device. If the problem persists, try another USB device.
	The unit cannot access the iPod.	Turn off the iPod and turn it on again.
	There is a problem with the signal path from the network to the unit.	Make sure your router and modem are turned on.
		Check the connection between the unit and your router (or hub) (p.32).
Check SP Wires	The speaker cables short circuit.	Twist the bare wires of the cables firmly and connect to the unit and speakers properly.
Connect error	The unit has detected the iPod, but cannot access it.	Turn off the iPod and then turn it on again.
Internal Error	An internal error has occurred.	Contact the nearest authorized Yamaha dealer or service center.
No content	There are no playable files in the selected folder.	Select a folder that contains files supported by the unit.
No device	The unit cannot detect the USB device.	Turn off the unit and reconnect your USB device. If the problem persists, try another USB device.
	The unit cannot detect the iPod.	Turn off the iPod and then turn it on again.
Please wait	The unit is preparing for connecting to the network.	Wait until the message disappears. If the message stays more than 3 minutes, turn off the unit and turn it on again.
RemID Mismatch	The remote control IDs of the unit and the remote control are not identical.	Change the remote control ID of the unit or the remote control (p.105).
Unable to play	The unit cannot play back the songs stored on the iPod for some reason.	Check the song data. If it cannot be played on the iPod itself, the song data or storage area may be defective.
	The unit cannot play back the songs stored on the PC for some reason.	Check if the format of files you are trying to play is supported by the unit. For information about the formats supported by the unit, see "Playing back music stored on media servers (PCs/NAS)" (p.65). If the unit supports the file format, but still cannot play back any files, the network may be overloaded with heavy traffic.
Unknown iPod	The connected iPod is not supported by the unit.	Use an iPod supported by the unit (p.58).
USB Overloaded	An overcurrent is flowing through the USB device.	Turn off the unit and reconnect your USB device. If the problem persists, try another USB device.

Ideal speaker layout

Use this diagram as a guide. You do not need to adjust the speaker layout to the following diagram exactly.



- FL Front speaker (L)
- FR Front speaker (R)
- C Center speaker
- SL Surround speaker (L)
- SR Surround speaker (R)
- SBL Surround back speaker (L)
- SBR Surround back speaker (R)
- PL Presence speaker (L)
- PR Presence speaker (R)
- SW Subwoofer

Audio information

Audio decoding format

Dolby Digital

Dolby Digital is a compressed digital audio format developed by Dolby Laboratories, Inc. that supports 5.1-channel audio. This technology is used for audio on most DVD discs.

Dolby Digital EX

Dolby Digital EX creates total 6.1-channel audio from 5.1-channel sources that are recorded with Dolby Digital Surround EX. This decoder adds a surround back sound to the original 5.1-channel sound.

Dolby Digital Plus

Dolby Digital Plus is a compressed digital audio format developed by Dolby Laboratories, Inc. that supports 7.1-channel audio. Dolby Digital Plus remains fully compatible with the existing multichannel audio systems that support Dolby Digital. This technology is used for audio on BD (Blu-ray discs).

Dolby Pro Logic II

Dolby Pro Logic II enables 5-channel playback from 2-channel sources. There are three modes available: "Music mode" for music sources, "Movie mode" for movie sources, and "Game mode" for game sources.

Dolby Pro Logic IIx

Dolby Pro Logic IIx enables 7-channel playback from 2-channel or multichannel sources. There are three modes available: "Music mode" for music sources, "Movie mode" for movie sources and "Game mode" for game sources (for 2-channel sources only).

Dolby TrueHD

Dolby TrueHD is an advanced lossless audio format developed by Dolby Laboratories, Inc. to offer a high-definition home theater experience with the quality of the studio master. Dolby TrueHD can carry up to eight channels of 96 kHz/24-bit audio (up to six channels of 192 kHz/24-bit audio) simultaneously. This technology is used for audio on BD (Blu-ray discs).

DTS 96/24

DTS 96/24 is a compressed digital audio format that supports 5.1-channel and 96 kHz/24-bit audio. This format remains fully compatible with the existing multichannel audio systems that support DTS Digital Surround. This technology is used for music DVDs, etc.

DTS Digital Surround

DTS Digital Surround is a compressed digital audio format developed by DTS, Inc. that supports 5.1-channel audio. This technology is used for audio on most DVD discs.

DTS-ES

DTS-ES creates total 6.1-channel audio from 5.1-channel sources that are recorded with DTS-ES. This decoder adds a surround back sound to the original 5.1-channel sound. In the DTS-ES Matrix 6.1 format, a surround back sound is recorded in the surround channels, and in the DTS-ES Discrete 6.1 format, a discrete surround back channel is recorded.

DTS Express

DTS Express is a compressed digital audio format that supports 5.1-channel audio and allows a higher compression rate than the DTS Digital Surround format developed by DTS, Inc. This technology is developed for audio streaming services on the Internet and secondary audio on BD (Blu-ray discs).

DTS-HD High Resolution Audio

DTS-HD High Resolution Audio is a compressed digital audio format developed by DTS, Inc. that supports 7.1-channel and 96 kHz/24-bit audio. DTS-HD High Resolution Audio remains fully compatible with the existing multichannel audio systems that support DTS Digital Surround. This technology is used for audio on BD (Blu-ray discs).

DTS-HD Master Audio

DTS-HD Master Audio is an advanced lossless audio format developed to offer a high-definition home theater experience with the quality of the studio master by DTS, Inc. DTS-HD Master Audio can carry up to eight channels of 96 kHz/24-bit audio (up to six channels of 192 kHz/24-bit audio) simultaneously. This technology is used for audio on BD (Blu-ray discs).

DTS Neo:6

DTS Neo:6 enables 6-channel playback from 2-channel sources. There are two modes available: "Music mode" for music sources and "Cinema mode" for movie sources. This technology provides discrete full-bandwidth matrix channels of surround sound.

DSD (Direct Stream Digital)

DSD (Direct Stream Digital) technology stores audio signals on digital storage media, such as SACD (Super Audio CDs). The signals are stored at a high-frequency sampling rate of 2.8224 MHz. The highest frequency response is equal to or higher than 100 kHz, with a dynamic range of 120 dB. This technology offers better audio quality than that used for CDs.

FLAC

FLAC is a file format for lossless audio data compression. FLAC is inferior to lossy compressed audio formats in compression rate but provides higher audio quality.

MP3

One of the compressed digital audio format used by MPEG. With psychoacoustic technologies, this compression method achieves a high compression rate. Reportedly, it is capable of compressing data quantity by about 1/10 maintaining a certain level of audio quality.

MPEG-4 AAC

An MPEG-4 audio standard. It is used for mobile telephones, portable audio players, and audio streaming services on Internet because it allows a high compression rate of data while maintaining better audio quality than MP3.

PCM (Pulse Code Modulation)

PCM is a signal format under which an analog audio signal is digitized, recorded, and transmitted. This technology is the basis of all other audio format. This technology is used as a lossless audio format called Linear PCM for audio on a variety of media, including CDs and BD (Blu-ray discs).

Sampling frequency/Quantization bit

Sampling frequency and quantization bits indicate the quantity of information when an analog audio signal is digitized. These values are noted as in the following example: "48 kHz/24-bit".

- Sampling frequency
  Sampling frequency (the number of times the signal is sampled per second) is called the sampling rate. When the sampling frequency is higher, the range of frequencies that can be played back are wider.
- Quantization bit
  The number of quantization bits indicate the degree of accuracy when converting the sound level into a numeric value. When the number of quantized bits is higher, the expression of the sound level is more accurate.

WAV

Windows standard audio file format, which defines the method of recording the digital data obtained by converting audio signals. By default, the PCM method (no compression) is used, but you can also use other compression methods.

WMA (Windows Media Audio)

One of the compressed digital audio formats developed by Microsoft Corporation. With psychoacoustic technologies, this compression method achieves a high compression rate. Reportedly, it is capable of compressing data quantity by about 1/20 maintaining a certain level of audio quality.

Others

Bi-amplification connection (Bi-amp)

A bi-amplification connection uses two amplifiers for a speaker. When you use the bi-amplification connection, the unit drives the tweeter and woofer in a speaker with the discrete amplifiers. As a consequence, the tweeter and woofer provide clear audio signal without the interference.

LFE (Low Frequency Effects) 0.1 channel

This channel reproduces low-frequency bass signals and has a frequency range from 20 Hz to 120 Hz. This channel is added to the channels for all bands with Dolby Digital or DTS to enhance low frequency audio effects. This channel is labeled 0.1 because it is limited to only low frequency audio.

Lip sync

Video output sometimes lags behind audio output due to the complexity of signal processing caused by an increase in video signal capacity. Lip sync is a technique for automatically correcting the timing lag between audio and video output.

HDMI and video information

Component video signal

With the component video signal system, the video signal is separated into the Y signal for luminance and the Pb and Pr signals for chrominance. Color can be reproduced more faithfully with this system because each of these signals is independent.

Composite video signal

With the composite video signal system, color, brightness, and synchronization data signals are combined and transmitted with a single cable.

Deep Color

Deep Color is a technology that HDMI specification supports. Deep Color increases the number of available colors within the boundaries defined by the RGB or YCbCr color space. Conventional color systems process the color using 8 bits. Deep Color processes the color with 10, 12, or 16 bits. This technology allows HDTVs and other displays to increase from millions of colors to billions of colors and eliminate on-screen color banding for smooth tonal transitions and subtle gradations between colors.

HDMI

HDMI (High-Definition Multimedia Interface) is the world-wide standard interface for digital audio/video signal transmission. This interface transmits both digital audio and digital video signals using a single cable without any loss. HDMI complies with HDCP (High-bandwidth Digital Content Protection) and provides a secure audio/video interface. For further information on HDMI, visit the HDMI website at "http://www.hdmi.org/".

x.v.Color

"x.v.Color" is a technology that the HDMI specification supports. It is a more extensive color space than sRGB and allows the expression of colors that were not hitherto possible. While remaining compatible with the color gamut of sRGB standards, "x.v.Color" expands the color space, and thus can produce more vivid, natural images.

Yamaha technologies

CINEMA DSP (Digital Sound Field Processor)

Since the Dolby Surround and DTS systems were originally designed for use in movie theaters, their effect is best experienced in a theater that has many speakers designed for acoustic effects. Since home conditions (such as room size, wall material, and number of speakers) can differ so widely, it is inevitable that there are differences in the sound that you hear. Based on a wealth of actually measured data, CINEMA DSP, Yamaha's original DSP technology provides the audiovisual experience of a movie theater in your own home.

CINEMA DSP 3D

The actually measured sound field data contain the information of the height of the sound images. CINEMA DSP 3D mode achieves the reproduction of the accurate height of the sound images so that it creates the accurate and intensive 3D sound fields in a listening room.

Compressed Music Enhancer

The Compressed Music Enhancer feature compensates for missing harmonics in compression music formats (such as MP3). As a result, this technology provides improved performance for the overall sound system.

SILENT CINEMA

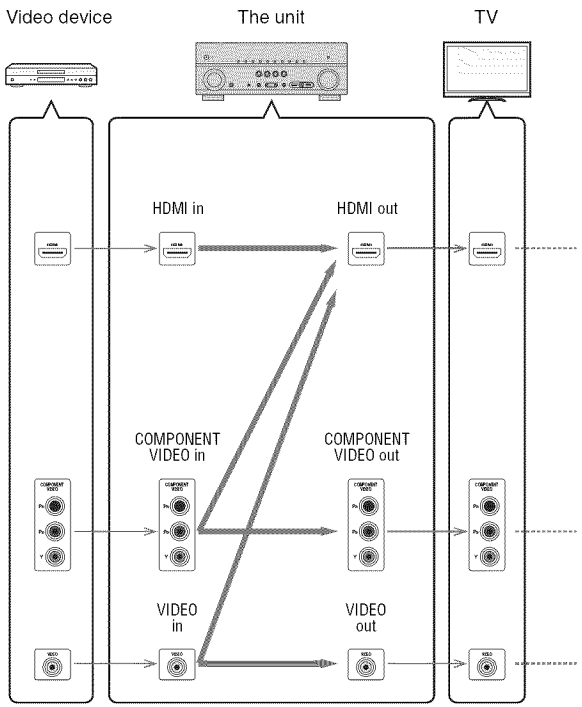
Yamaha has developed a natural, realistic sound effect DSP algorithm for headphones. Parameters for headphones have been set for each sound program, so that accurate representations of all the sound programs can be enjoyed on headphones.

Virtual CINEMA DSP

Virtual CINEMA DSP allows the system to virtually reproduce the sound field of the surround speakers with front left and right speakers. Even if the surround speakers are not connected, the unit creates the realistic sound field in a listening room.

Video signal flow

Video signals input from a video device to the unit are output to a TV as shown below.



Video conversion table

- You can select the resolution and the aspect ratio applied to HDMI-output video processing in “Video Mode” (p.95) in the “Setup” menu.
- The unit does not convert 480-line and 576-line video signals interchangeably.

		HDMI out						COMPONENT VIDEO out				VIDEO out
	Resolution	480i/576i	480p/576p	720p	1080i	1080p	4K	480i/576i	480p/576p	720p	1080i	480i/576i
HDMI in	480i/576i	→	→	→	→	→	→					
	480p/576p		→	→	→	→	→					
	720p			→	→	→	→					
	1080i			→	→	→	→					
	1080p/50, 60 Hz			→	→	→	→					
	1080p/24 Hz					→	→					
	4K						→					
COMPONENT VIDEO in	480i/576i	→	→	→	→	→	→	→				
	480p/576p								→			
	720p									→		
	1080i										→	
VIDEO in	480i/576i	→	→	→	→	→	→					→

→ : Available

Information on HDMI

HDMI Control

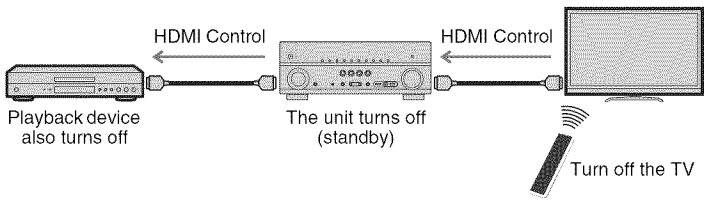
HDMI Control allows you to operate external devices via HDMI. If you connect a TV that supports HDMI Control to the unit with an HDMI cable, you can control the unit (such as power and volume) with TV remote control operations. You can also control playback devices (such as HDMI Control-compatible BD/DVD players) connected to the unit with an HDMI cable.

For details on connections, see "Connecting a TV" (p.23) and "Connecting video devices (such as BD/DVD players)" (p.28).

Operations available from the TV's remote control

- Standby synchronization
- Volume control including mute
- Switching to input audio from the TV when the TV input is switched to its built-in tuner
- Switching to input video/audio from the selected playback device
- Switching between audio output devices (the unit or TV speaker)

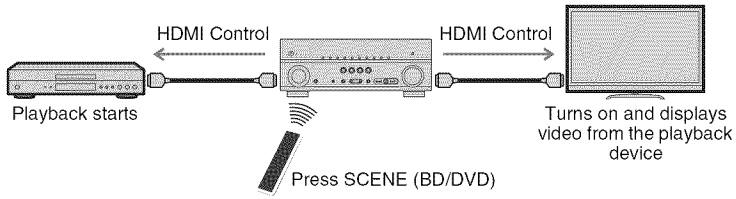
(Example)



Operations available from the unit's remote control

- Starting playback on the playback device and turning on the TV with a scene selection (p.46)
- Switching the TV input to display the on-screen menu (when ON SCREEN is pressed)
- Controlling the playback device (playback and menu operations) without registering remote control codes (p.109)

(Example)



To use HDMI Control, you need to perform the following HDMI Control link setup after connecting the TV and playback devices.

- This setup is required every time you add a new HDMI Control-compatible device to your system.

1 Turn on the unit, TV, and playback devices.

2 Enable HDMI Control on the unit, TV, and playback devices (such as HDMI Control-compatible BD/DVD players).

To enable HDMI Control on the unit, set "HDMI Control" (p.96) in the "Setup" menu to "On" and configure the related items ("TV Audio Input", "ARC", and "Standby Sync").

3 Turn off the main power of the TV and then turn off the unit and playback devices.

4 Turn on the unit and playback devices and then turn on the TV.

5 Switch the TV input to display the video from the unit.

6 Check the followings.

On the unit: The input to which the playback device is connected is selected. If not, select the input source manually.

On the TV: The video from the playback device is displayed.

7 Check that the unit is properly synchronized with the TV by turning off the TV or adjusting the TV volume with the TV remote control.

- If HDMI Control does not work properly, try unplugging the TV in Step 2 and plugging in the TV again in Step 3. It may solve the problem. Also, HDMI Control may not work if the number of connected devices exceeds the limit. In this case, disable HDMI Control on the devices not in use.
- If the unit is not synchronized to the TV's power operations, check the priority of the audio output setting on the TV.
- We recommend using TV and playback devices from the same manufacturer so that HDMI Control works more effectively.

HDMI signal compatibility

Audio signals

Audio signal type	Audio signal format	Compatible media (example)
2ch Linear PCM	2ch, 32 to 192 kHz, 16/20/24 bit	CD, DVD-Video, DVD-Audio
Multichannel Linear PCM	8ch, 32 to 192 kHz, 16/20/24 bit	DVD-Audio, BD (Blu-ray disc), HD DVD
DSD	2/5.1ch, 2.8224 MHz, 1 bit	SACD
Bitstream	Dolby Digital, DTS	DVD-Video
Bitstream (High definition audio)	Dolby TrueHD, Dolby Digital Plus, DTS-HD Master Audio, DTS-HD High Resolution Audio, DTS Express	BD (Blu-ray disc), HD DVD

Video signals

The unit is compatible with the video signals of the following resolutions:

- VGA
- 480i/60 Hz
- 576i/50 Hz
- 480p/60 Hz
- 576p/50 Hz
- 720p/60 Hz, 50 Hz
- 1080i/60 Hz, 50 Hz
- 1080p/60 Hz, 50 Hz, 24 Hz
- 3840 x 2160p/30 Hz, 25 Hz, 24 Hz (4K signals)
- 4096 x 2160p/24 Hz (4K signals)

- When CPPM copy-protected DVD-Audio is played back, video/audio signals may not be output, depending on the type of the DVD player.
- The unit is not compatible with HDCP-incompatible HDMI or DVI devices. For details, refer to the instruction manual for each device.
- To decode audio bitstream signals on the unit, set the input source device appropriately so that the device outputs the bitstream audio signals directly (does not decode the bitstream signals on the playback device). For details, refer to the instruction manual for the playback device.

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"Made for iPod," "Made for iPhone," and "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards.

Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.

Please note that the use of this accessory with iPod, iPhone, or iPad may affect wireless performance.

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This receiver supports network connections.

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Specifications

Input jacks

• Analog Audio
[RX-V773]
[U.S.A. and Canada models]
Audio x 4 (AV 5–6, AUDIO 1–2)
[Other models]
Audio x 5 (AV 5–6, AUDIO 1–2, PHONO)
[RX-V673]
Audio x 4 (AV 5–6, AUDIO 1–2)

• Digital Audio (Supported frequencies: 32 kHz to 96 kHz)
Optical x 2 (AV 1, AV 4)
Coaxial x 2 (AV 2–3)

• Video
Composite x 5 (AV 3–6, VIDEO [Front Panel])
Component x 2 (AV 1–2)

• HDMI Input
HDMI x 6 (HDMI 1–5, V-AUX)

• Other
USB x 1 [Front Panel] (USB2.0)
USB x 1 [Rear Panel]
(For Yamaha Accessory, Power Supply Only)
NETWORK x 1 (100Base-TX)

Output jacks

• Analog Audio
[RX-V773]
- Speaker Out x 9 (7 ch) (FRONT L/R, CENTER, SURROUND L/R, SURROUND BACK L/R*1, EXTRA SP L/R*2)
  *1 Note: Assignment is possible [SURROUND BACK, BI-AMP (FRONT L/R)]
  *2 Note: Assignment is possible [ZONE2, PRESENCE]
- Pre Out x 7 (FRONT L/R, CENTER, SURROUND L/R, SURROUND BACK L/R)
- Subwoofer Out x 2 (SUBWOOFER 1–2, mono)
- AV OUT x 1
- AUDIO OUT x 1
- ZONE2 OUT x 1
- Headphone x 1

[RX-V673]
- Speaker Out x 9 (7 ch) (FRONT L/R, CENTER, SURROUND L/R, SURROUND BACK L/R*1, EXTRA SP L/R*2)
  *1 Note: Assignment is possible [SURROUND BACK, BI-AMP (FRONT L/R)]
  *2 Note: Assignment is possible [ZONE2, PRESENCE]
- Subwoofer Out x 2 (SUBWOOFER 1–2, mono)
- AV OUT x 1
- AUDIO OUT x 1
- ZONE2 OUT x 1
- Headphone x 1

• Video
MONITOR OUT
- Component x 1
- Composite x 1

AV OUT
- Composite x 1

• HDMI Output
[RX-V773]
HDMI OUT x 2 (HDMI OUT 1–2)
[RX-V673]
HDMI OUT x 1

Remote jacks

• REMOTE IN x 1

• REMOTE OUT x 1

• TRIGGER OUT x 1

HDMI

• HDMI Specification: Deep Color, "x.v.Color," Auto Lip Sync, ARC (Audio Return Channel), 3D, 4K

• Video Format (Repeater Mode)
- VGA
- 480i/60 Hz
- 576i/50 Hz
- 480p/60 Hz
- 576p/50 Hz
- 720p/60 Hz, 50 Hz
- 1080i/60 Hz, 50 Hz
- 1080p/60 Hz, 50 Hz, 24 Hz
- 3840 x 2160p/30 Hz, 25 Hz, 24 Hz
- 4096 x 2160p/24 Hz

• Audio Format
- Dolby TrueHD
- Dolby Digital Plus
- Dolby Digital
- DTS-HD Master Audio
- DTS-HD High Resolution Audio
- DTS Express
- DTS
- DSD 6-ch
- PCM 2-ch to 8-ch (Max. 192 kHz/24-bit)

• Content Protection: HDCP compatible

• Link Function: CEC supported

TUNER

• Analog Tuner
[U.K. and Europe models]
FM/AM with Radio Data System x 1 (TUNER)
[Other models]
FM/AM x 1 (TUNER)

USB

• Capable of iPod, Mass Storage Class USB Memory

• Current Supply Capacity: 2.1 A

Network

• PC Client Function

• Compatible with DLNA ver. 1.5

• AirPlay supported

• Internet Radio

Compatible Decoding Formats

• Decoding Format
- Dolby TrueHD, Dolby Digital Plus
- Dolby Digital, Dolby Digital EX
- DTS-HD Master Audio, DTS-HD High Resolution Audio, DTS Express
- DTS, DTS 96/24, DTS-ES Matrix 6.1, DTS-ES Discrete 6.1
- DTS Digital Surround

• Post Decoding Format
- Dolby Pro Logic
- Dolby Pro Logic II Music, Dolby Pro Logic II Movie, Dolby Pro Logic II Game
- Dolby Pro Logic IIx Music, Dolby Pro Logic IIx Movie, Dolby Pro Logic IIx Game
- DTS Neo:6 Music, DTS Neo:6 Cinema

Audio Section

• Rated Output Power (2-channel driven)
[RX-V773]
(20 Hz to 20 kHz, 0.09% THD, 8 Ω)
Front L/R ..... 95 W+95 W
(1 kHz, 0.9% THD, 8 Ω)
Front L/R ..... 110 W+110 W
Center ..... 110 W
Surround L/R ..... 110 W+110 W
Surround Back L/R ..... 110 W+110 W
[RX-V673]
(20 Hz to 20 kHz, 0.09% THD, 8 Ω)
Front L/R ..... 90 W+90 W
(1 kHz, 0.9% THD, 8 Ω)
Front L/R ..... 105 W+105 W
Center ..... 105 W
Surround L/R ..... 105 W+105 W
Surround Back L/R ..... 105 W+105 W

• Rated Output Power (1-channel driven)
[RX-V773]
(1 kHz, 0.9% THD, 8 Ω)
Front L/R ..... 130 W/ch
Center ..... 130 W/ch
Surround L/R ..... 130 W/ch
Surround Back L/R ..... 130 W/ch
(1 kHz, 0.9% THD, 4 Ω)
Front L/R [U.K. and Europe models] ..... 160 W/ch
[RX-V673]
(1 kHz, 0.9% THD, 8 Ω)
Front L/R ..... 125 W/ch
Center ..... 125 W/ch
Surround L/R ..... 125 W/ch
Surround Back L/R ..... 125 W/ch
(1 kHz, 0.9% THD, 4 Ω)
Front L/R [U.K. and Europe models] ..... 150 W/ch

• Maximum Effective Output Power (JEITA, 1 kHz, 10% THD, 8 Ω)
[China, Asia and General models]
[RX-V773]
Front L/R ..... 160 W/ch
Center ..... 160 W/ch
Surround L/R ..... 160 W/ch
Surround Back L/R ..... 160 W/ch
[RX-V673]
Front L/R ..... 150 W/ch
Center ..... 150 W/ch
Surround L/R ..... 150 W/ch
Surround Back L/R ..... 150 W/ch

• Dynamic Power (IHF)
[RX-V773]
Front L/R (8/6/4/2 Ω) ..... 140/180/210/250 W
[RX-V673]
Front L/R (8/6/4/2 Ω) ..... 130/170/200/240 W

• Damping Factor
Front L/R, 20 Hz to 20 kHz, 8 Ω ..... 100 or more

• Input Sensitivity / Input Impedance
[RX-V773]
PHONO (1 kHz, 100 W/8 Ω)
[Except for U.S.A. and Canada models] ..... 3.5 mV/47 kΩ
AV 5 etc. (1 kHz, 100 W/8 Ω) ..... 200 mV/47 kΩ
[RX-V673]
AV 5 etc. (1 kHz, 100 W/8 Ω) ..... 200 mV/47 kΩ

• Maximum Input Signal
[RX-V773]
PHONO (1 kHz, 0.1% THD)
[Except for U.S.A. and Canada models] ..... 60 mV
AV 5 etc. (1 kHz, 0.5% THD, Effect On) ..... 2.3 V
[RX-V673]
AV 5 etc. (1 kHz, 0.5% THD, Effect On) ..... 2.3 V

• Output Level / Output Impedance
REC OUT ..... 200 mV/1.2 kΩ
SUBWOOFER ..... 1 V/1.2 kΩ
ZONE2 OUT ..... 200 mV/1.2 kΩ

- Headphone Jack Rated Output / Impedance
  AV 5 etc. (1 kHz, 50 mV, 8 Ω) ..... 100 mV/560 Ω
- Frequency Response
  AV 5 etc. to Front (10 Hz to 100 kHz) ..... +0/-3 dB
- Total Harmonic Distortion
  [RX-V773]
  PHONO to AUDIO OUT (20 Hz to 20 kHz, 1 V)
  [Except for U.S.A. and Canada models] ..... 0.02% or less
  AV 5 etc. to Front (Pure Direct)
  (20 Hz to 20 kHz, 50 W, 8 Ω) ..... 0.06% or less
  [RX-V673]
  AV 5 etc. to Front (Pure Direct)
  (20 Hz to 20 kHz, 50 W, 8 Ω) ..... 0.06% or less
- Signal to Noise Ratio (IHF-A Network)
  [RX-V773]
  PHONO (Input Shorted 5 mV, AUDIO OUT)
  [Except for U.S.A. and Canada models] ..... 81 dB or more
  AV 5 etc. (Input Shorted 250 mV, Speaker Out)
  ..... 100 dB or more
  [RX-V673]
  AV 5 etc. (Input Shorted 250 mV, Speaker Out)
  ..... 100 dB or more
- Residual Noise (IHF-A Network)
  Front L/R (Speaker Out) ..... 150 µV or less
- Channel Separation
  [RX-V773]
  PHONO (Input Shorted, 1 kHz/10 kHz)
  [Except for U.S.A. and Canada models]
  ..... 60 dB/55 dB or more
  AV 5 etc. (Input 5.1 kΩ Shorted, 1 kHz/10 kHz)
  ..... 60 dB/45 dB or more
  [RX-V673]
  AV 5 etc. (Input 5.1 kΩ Shorted, 1 kHz/10 kHz)
  ..... 60 dB/45 dB or more
- Volume Control
  Range ..... MUTE, -80 dB to +16.5 dB
  Step ..... 0.5 dB
- Tone Control Characteristics
  Bass Boost/Cut ..... ±6 dB/0.5 dB Step at 50 Hz
  Bass Turnover ..... 350 Hz
  Treble Boost/Cut ..... ±6 dB/0.5 dB Step at 20 kHz
  Treble Turnover ..... 3.5 kHz
- Filter Characteristics
  (fc=40/60/80/90/100/110/120/160/200 Hz)
  H.P.F. (Front, Center, Surround, Surround Back) ..... 12 dB/oct.
  L.P.F. (Subwoofer) ..... 24 dB/oct.

Video Section

- Video Signal Type
  [U.S.A., Canada, Korea and General models] ..... NTSC
  [Other models] ..... PAL
- Video Signal Type (Video Conversion) ..... NTSC/PAL
- Video Signal Level
  Composite ..... 1 Vp-p/75 Ω
  Component
  Y ..... 1 Vp-p/75 Ω
  Pb/Pr ..... 0.7 Vp-p/75 Ω
- Video Maximum Input Level (Video Conversion Off)
  ..... 1.5 Vp-p or more
- Video Signal to Noise Ratio ..... 50 dB or more
- Monitor Out Frequency Response (Video Conversion Off)
  Component ..... 5 Hz to 60 MHz, -3 dB

FM Section

- Tuning Range
  [U.S.A. and Canada models] ..... 87.5 to 107.9 MHz
  [Asia and General models]
  ..... 87.5/87.50 MHz to 108.0/108.00 MHz
  [Other models] ..... 87.50 MHz to 108.00 MHz
- 50 dB Quiet Sensitivity (IHF, 1 kHz, 100% MOD.)
  Mono ..... 3 µV (20.8 dBf)
- Signal to Noise Ratio (IHF)
  Mono ..... 71 dB
  Stereo ..... 69 dB
- Harmonic Distortion (IHF, 1 kHz)
  Mono 0.3%
  Stereo 0.5%
- Antenna Input ..... 75 Ω unbalanced

AM section

- Tuning Range
  [U.S.A. and Canada models] ..... 530 to 1710 kHz
  [Asia and General models] ..... 530/531 kHz to 1710/1611 kHz
  [Other models] ..... 531 kHz to 1611 kHz

General

- Power Supply
  [U.S.A. and Canada models] ..... AC 120 V, 60 Hz
  [General model] ..... AC 110 to 120/220 to 240 V, 50/60 Hz
  [China model] ..... AC 220 V, 50 Hz
  [Korea model] ..... AC 220 V, 60 Hz
  [Australia model] ..... AC 240 V, 50 Hz
  [U.K. and Europe models] ..... AC 230 V, 50 Hz
  [Asia model] ..... AC 220 to 240 V, 50/60 Hz
- Power Consumption
  [U.S.A. and Canada models] ..... 400 W/500 VA
  [Asia and General models] ..... 300 W
  [Other models] ..... 330 W
- Standby Power Consumption
  HDMI Control Off, Standby Through Off ..... 0.1 W (Typical)
  HDMI Control On, Standby Through On (No Signals)
  ..... 3.0 W (Typical)
  Network Standby On ..... 2.0 W (Typical)
  Maximum Power Consumption
  [Asia and General models] ..... 590 W
- Dimensions (W x H x D)
  [RX-V773] ..... 435 x 171 x 368 mm (17-1/8" x 6-3/4" x 14-1/2")
  [RX-V673] ..... 435 x 171 x 364 mm (17-1/8" x 6-3/4" x 14-3/8")
- Weight
  [RX-V773] ..... 10.8 kg (23.8 lbs)
  [RX-V673] ..... 10.2 kg (22.5 lbs)

* Specifications are subject to change without notice.

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YAMAHA

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UC

English

FCC INFORMATION (for US customers)

1 **IMPORTANT NOTICE: DO NOT MODIFY THIS UNIT!**
This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modifications not expressly approved by Yamaha may void your authority, granted by the FCC, to use the product.

2 **IMPORTANT:** When connecting this product to accessories and/or another product use only high quality shielded cables. Cable/s supplied with this product MUST be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the USA.

3 **NOTE:** This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class "B" digital devices. Compliance with these requirements provides a reasonable level of assurance that your use of this product in a residential environment will not result in harmful interference with other electronic devices.
This equipment generates/uses radio frequencies and, if not installed and used according to the instructions found in the users manual, may cause interference harmful to the operation of other electronic devices.

Compliance with FCC regulations does not guarantee that interference will not occur in all installations. If this product is found to be the source of interference, which can be determined by turning the unit "OFF" and "ON", please try to eliminate the problem by using one of the following measures:

Relocate either this product or the device that is being affected by the interference.

Utilize power outlets that are on different branch (circuit breaker or fuse) circuits or install AC line filter/s.

In the case of radio or TV interference, relocate/reorient the antenna. If the antenna lead-in is 300 ohm ribbon lead, change the lead-in to coaxial type cable.

If these corrective measures do not produce satisfactory results, please contact the local retailer authorized to distribute this type of product. If you can not locate the appropriate retailer, please contact Yamaha Corporation of America A/V Division, USA. 6660 Orangethorpe Ave., Buena Park, CA 90620.

The above statements apply ONLY to those products distributed by Yamaha Corporation of America or its subsidiaries.

COMPLIANCE INFORMATION STATEMENT (DECLARATION OF CONFORMITY PROCEDURE)

Responsible Party: Yamaha Corporation of America A/V Division

Address: 6660 Orangethorpe Avenue Buena Park, CA 90620

Telephone: 714-522-9011

Type of Equipment: AV Receiver

Model Name: RX-A3020/RX-A2020/RX-A1020/RX-A820/RX-A720/
RX-V3073/RX-V2073/RX-V1073/RX-V773/RX-V673/RX-V573/RX-V473/
HTR-7065/HTR-6065/HTR-5065/HTR-4065

- This device complies with Part 15 of the FCC Rules.
- Operation is subject to the following conditions:
  – This device may not cause harmful interference.
  – This device must accept any interference received including interference that may cause undesired operation.

See the Troubleshooting section at the end of the Owner's Manual on the supplied CD-ROM if interference to radio reception is suspected.

INFORMATION DE LA FCC (pour les clients résidant aux États-Unis)

1 **AVIS IMPORTANT : NE PAS APPORTER DE MODIFICATIONS À CET APPAREIL !**
Cet appareil est conforme aux exigences de la FCC s'il est installé selon les instructions du mode d'emploi. Toute modification non approuvée expressément par Yamaha peut invalider l'autorisation de la FCC d'utiliser cet appareil.

2 **IMPORTANT :** N'utiliser que des câbles blindés de haute qualité pour le raccordement de cet appareil à des accessoires et/ou à un autre appareil. Seuls le ou les câbles fournis avec le produit DOIVENT être utilisés. Suivre les instructions concernant l'installation. Le non respect des instructions peut invalider l'autorisation, accordée par la FCC, d'utiliser ce produit aux États-Unis.

3 **REMARQUE :** Cet appareil a été testé et déclaré conforme aux normes relatives aux appareils numériques de Classe « B », telles que fixées dans l'Article 15 de la Réglementation FCC. Ces normes sont destinées à assurer une protection suffisante contre les interférences nuisibles avec d'autres appareils électroniques dans une installation résidentielle.
Cet équipement génère et utilise des fréquences radio qui, en cas d'installation et d'utilisation non conformes aux instructions du mode d'emploi, peuvent être à l'origine d'interférences empêchant d'autres appareils de fonctionner.

Cependant, la conformité à la Réglementation FCC ne garantit pas l'absence d'interférences dans une installation particulière. Si cet appareil devait produire des interférences, ce qui peut être déterminé en « ÉTEIGNANT », puis en « RALLUMANT » l'appareil, l'utilisateur est invité à essayer de corriger le problème d'une des manières suivantes :

Réorienter cet appareil ou le dispositif affecté par les interférences.

Utiliser des prises d'alimentation branchées sur différents circuits (avec interrupteur de circuit ou fusible) ou installer un ou des filtres pour ligne secteur.

Dans le cas d'interférences radio ou TV, changer de place l'antenne et la réorienter. Si l'antenne est un conducteur plat de 300 ohms, remplacer ce câble par un câble de type coaxial.

Si ces mesures ne donnent pas les résultats escomptés, prière de contacter le détaillant local autorisé à commercialiser ce type d'appareil. Si ce n'est pas possible, prière de contacter Yamaha Corporation of America A/V Division, États-Unis, 6660 Orangethorpe Ave., Buena Park, CA 90620.

Les déclarations précédentes concernent EXCLUSIVEMENT les appareils commercialisés par Yamaha Corporation of America ou ses filiales.

DÉCLARATION SUR LES INFORMATIONS DE CONFORMITÉ (PROCÉDURE DE DÉCLARATION DE CONFORMITÉ)

Partie responsable:	Yamaha Corporation of America A/V Division
Addresse:	6660 Orangethorpe Avenue Buena Park, CA 90620
Téléphone:	714-522-9011
Type d'équipement:	Ampli-tuner audio-vidéo
Nom de modèle:	RX-A3020/RX-A2020/RX-A1020/RX-A820/RX-A720/ RX-V3073/RX-V2073/RX-V1073/RX-V773/RX-V673/RX-V573/ RX-V473/ HTR-7065/HTR-6065/HTR-5065/HTR-4065

- Cet appareil est conforme à l'article 15 de la réglementation FCC.
- Le fonctionnement est soumis aux conditions suivantes:
  – Cet appareil ne peut pas causer d'interférences nuisibles.
  – Cet appareil doit recevoir toutes les interférences, y compris celles pouvant entraîner des problèmes de fonctionnement.

Voyez la section Guide de dépannage à la fin de ce mode d'emploi si vous pensez que le problème de réception radio est dû à des interférences.

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YAMAHA

UAB

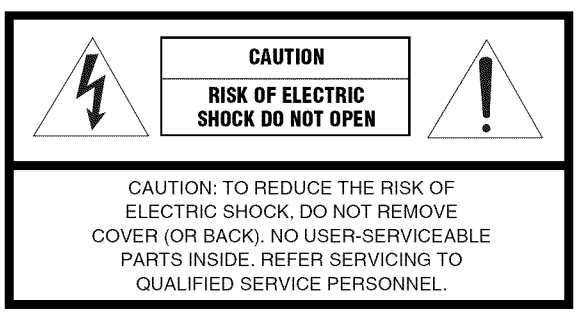
AV Receiver

Safety Brochure

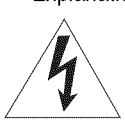
⏻ (Power key)
Turns on the power of this unit or sets it to the standby mode.

For more detailed information, refer to the Owner's Manual on the CD-ROM. To view the Owner's Manual, click on "English" in the screen displayed automatically when you insert the CD-ROM into your PC, or click on the model name if the screen to select models is displayed, and then click on "English" in the next screen. Then, follow the onscreen instructions.
If the screen is not displayed automatically, open the "index.html" in the CD-ROM.
Caution: Do not attempt to play this CD-ROM in an audio player.
The Owner's Manual contained in the CD-ROM can be downloaded from the following website.
http://download.yamaha.com/

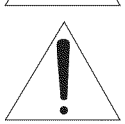
IMPORTANT SAFETY INSTRUCTIONS


CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

- Explanation of Graphical Symbols



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert you to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert you to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

1 Read these instructions.
2 Keep these instructions.
3 Heed all warnings.
4 Follow all instructions.
5 Do not use this apparatus near water.
6 Clean only with dry cloth.
7 Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11 Only use attachments/accessories specified by the manufacturer.
12 Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13 Unplug this apparatus during lightning storms or when unused for long periods of time.
14 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

We Want You Listening For A Lifetime

Yamaha and the Electronic Industries Association's Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion – and, most importantly, without affecting your sensitive hearing. Since hearing damage from loud sounds is often undetectable until it is too late, Yamaha and the Electronic Industries Association's Consumer Electronics Group recommend you to avoid prolonged exposure from excessive volume levels.

FOR CANADIAN CUSTOMERS

To prevent electric shock, match wide blade of plug to wide slot and fully insert.
This Class B digital apparatus complies with Canadian ICES-003.

POUR LES CONSOMMATEURS CANADIENS

Pour éviter les chocs électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

■ For U.K. customers

If the socket outlets in the home are not suitable for the plug supplied with this appliance, it should be cut off and an appropriate 3 pin plug fitted. For details, refer to the instructions described below.

Note

The plug severed from the mains lead must be destroyed, as a plug with bared flexible cord is hazardous if engaged in a live socket outlet.

■ Special Instructions for U.K. Model

IMPORTANT

THE WIRES IN MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE:

Blue: NEUTRAL
Brown: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.
Making sure that neither core is connected to the earth terminal of the three pin plug.

CAUTION: READ THIS BEFORE OPERATING YOUR UNIT.

1 To assure the finest performance, please read this manual carefully. Keep it in a safe place for future reference.

2 Install this sound system in a well ventilated, cool, dry, clean place - away from direct sunlight, heat sources, vibration, dust, moisture, and/or cold. For proper ventilation, allow the following minimum clearances.

Top: 30 cm, Rear: 20 cm, Sides: 20 cm

3 Locate this unit away from other electrical appliances, motors, or transformers to avoid humming sounds.

4 Do not expose this unit to sudden temperature changes from cold to hot, and do not locate this unit in an environment with high humidity (i.e. a room with a humidifier) to prevent condensation inside this unit, which may cause an electrical shock, fire, damage to this unit, and/or personal injury.

5 Avoid installing this unit where foreign object may fall onto this unit and/or this unit may be exposed to liquid dripping or splashing. On the top of this unit, do not place:
- Other components, as they may cause damage and/or discoloration on the surface of this unit.
- Burning objects (i.e. candles), as they may cause fire, damage to this unit, and/or personal injury.
- Containers with liquid in them, as they may fall and liquid may cause electrical shock to the user and/or damage to this unit.

6 Do not cover this unit with a newspaper, tablecloth, curtain, etc. in order not to obstruct heat radiation. If the temperature inside this unit rises, it may cause fire, damage to this unit, and/or personal injury.

7 Do not plug in this unit to a wall outlet until all connections are complete.

8 Do not operate this unit upside-down. It may overheat, possibly causing damage.

9 Do not use force on switches, knobs and/or cords.

10 When disconnecting the power cable from the wall outlet, grasp the plug; do not pull the cable.

11 Do not clean this unit with chemical solvents; this might damage the finish. Use a clean, dry cloth.

12 Only voltage specified on this unit must be used. Using this unit with a higher voltage than specified is dangerous and may cause fire, damage to this unit, and/or personal injury. Yamaha will not be held responsible for any damage resulting from use of this unit with a voltage other than specified.

13 To prevent damage by lightning, keep the power cable and outdoor antennas disconnected from a wall outlet or this unit during a lightning storm.

14 Do not attempt to modify or fix this unit. Contact qualified Yamaha service personnel when any service is needed. The cabinet should never be opened for any reasons.

15 When not planning to use this unit for long periods of time (i.e. vacation), disconnect the AC power plug from the wall outlet.

16 Be sure to refer to the "Troubleshooting" section of the Owner's Manual on the CD-ROM for common operating errors before concluding that this unit is faulty.

17 Before moving this unit, press ⏻ to set it to standby mode and disconnect the AC power plug from the wall outlet.

18 VOLTAGE SELECTOR (General model)
The VOLTAGE SELECTOR on the rear panel of this unit must be set for your local main voltage BEFORE plugging into the AC wall outlet. Voltages are:
.....AC 110-120/220-240V, 50/60Hz

19 Condensation will form when the surrounding temperature changes suddenly. Disconnect the power cable from the outlet, then leave this unit alone.

20 When using this unit for a long time, this unit may become warm. Turn the power off, then leave this unit alone for cooling.

21 Install this unit near the AC outlet and where the AC power plug can be reached easily.

22 The batteries shall not be exposed to excessive heat such as sunshine, fire or the like. When you dispose of batteries, follow your regional regulations.

23 Excessive sound pressure from earphones and headphones can cause hearing loss.

24 When replacing the batteries, be sure to use batteries of the same type. Danger of explosion may happen if batteries are incorrectly replaced.

This unit is not disconnected from the AC power source as long as it is connected to the wall outlet, even if this unit itself is turned off by ⏻. This state is called the standby mode. In this state, this unit is designed to consume a very small quantity of power.

WARNING
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

■ Notes on remote controls and batteries

- Do not spill water or other liquids on the remote control.
- Do not drop the remote control.
- Do not leave or store the remote control in the following conditions:
  - places of high humidity, such as near a bath
  - places of high temperatures, such as near a heater or stove
  - places of extremely low temperatures
  - dusty places
- Insert the battery according to the polarity markings (+ and -).
- Change all batteries if you notice the following conditions:
  - the operation range of the remote control narrows
  - the transmit indicator does not flash or is dim
- If the batteries run out, immediately remove them from the remote control to prevent an explosion or acid leak.
- If you find leaking batteries, discard the batteries immediately, taking care not to touch the leaked material. If the leaked material comes into contact with your skin or gets into your eyes or mouth, rinse it away immediately and consult a doctor. Clean the battery compartment thoroughly before installing new batteries.
- Do not use old batteries together with new ones. This may shorten the life of the new batteries or cause old batteries to leak.
- Do not use different types of batteries (such as alkaline and manganese batteries) together. Specification of batteries may be different even though they look the same.
- Before inserting new batteries, wipe the compartment clean.
- If the remote control is without batteries for more than 2 minutes, or if exhausted batteries remain in the remote control, the contents of the memory may be cleared. In such a case, install new batteries and set the remote control code.
- Dispose of batteries according to your regional regulations.
- Keep batteries away from children. If a battery is accidentally swallowed, contact your doctor immediately.
- When not planning to use the remote control for long periods of time, remove the batteries from the remote control.
- Do not charge or disassemble the supplied batteries.

This label is required to be attached to a product of which the temperature of the top cover may hot during operation.

Information for Users on Collection and Disposal of Old Equipment and Used Batteries

These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries should not be mixed with general household waste.
For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points, in accordance with your national legislation and the Directives 2002/96/EC and 2006/66/EC.

By disposing of these products and batteries correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.

For more information about collection and recycling of old products and batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

Pb

[Information on Disposal in other Countries outside the European Union]

These symbols are only valid in the European Union. If you wish to discard these items, please contact your local authorities or dealer and ask for the correct method of disposal.

Note for the battery symbol (bottom two symbol examples):

This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.

IMPORTANT

Please record the serial number of this unit in the space below.
MODEL:
Serial No.:
The serial number is located on the rear of the unit. Retain this Owner's Manual in a safe place for future reference.

Important Notice:Guarantee Information for customers in EEA* and Switzerland

English

For detailed guarantee information about this Yamaha product, and Pan-EEA* and Switzerland warranty service, please either visit the website address below (Printable file is available at our website) or contact the Yamaha representative office for your country. *EEA:European Economic Area

http://europe.yamaha.com/warranty/

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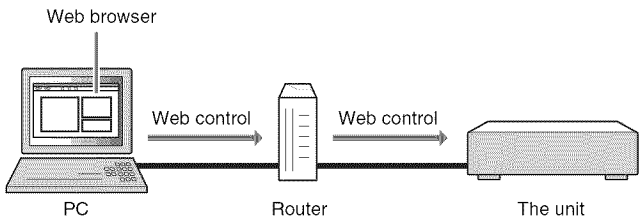
Supplement for Web Control

Controlling the unit from a web browser (web control)

You can control the unit with the web control screen displayed in a web browser.

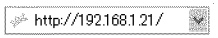


- To use this function, the unit and your PC must be connected to the network properly.
- Some security software installed on your PC may block the access of the unit to your PC. In these cases, configure the security software appropriately.
- To display the web control screen or turn on the unit from the web control when the unit is in standby mode, set "Network Standby" (p.3) to "On".
- We recommend using one of the following web browsers.
  - Internet Explorer 7.x, 8.x or 9.x
  - Safari 5.x

1 Start the web browser.

2 Enter the IP address of the unit in the address bar of the web browser.

(Example)



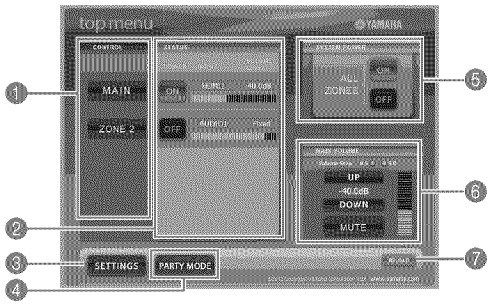
- You can check the IP address of the unit in "Network" in the "Information" menu.
- You can bookmark the unit's IP address in the browser or create a shortcut link (p.3) to access the web control screen quickly in the future.

Note

- If you are using a DHCP server, the IP address of the unit may change each time the unit is turned on.
- If you have enabled the MAC address filter, you need to specify the MAC address of your PC to allow the PC to access the unit. For information on how to check the MAC address of your PC, refer to its instruction manual.

- Items available on the web control screen vary depending on the model.

Top menu screen



1 CONTROL
Moves to the control screen for the selected zone.

2 STATUS
Turns on/off the power for each zone or displays the input source and volume set for each zone.

3 SETTINGS
Moves to the settings screen.

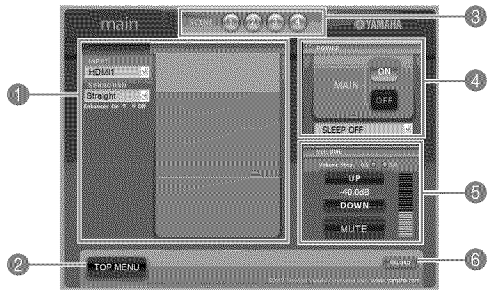
4 PARTY MODE
(Not available on some models)
Turns on/off the party mode.

5 SYSTEM POWER
Turns on/off the power for all zones.

6 MAIN VOLUME
Adjusts the volume or mutes the audio output for the main zone. You can also select the increments used for volume adjustment.

7 RELOAD
Reloads the current status of the unit.

Control screen



1 PLAY INFO
Selects an input source or controls playback for the selected zone.

2 TOP MENU
Moves to the top menu screen.

3 SCENE
Selects a scene for the selected zone (only for the main zone on some models).

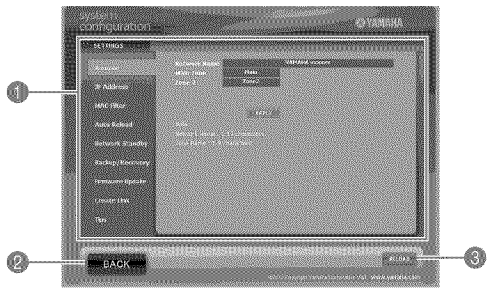
4 POWER
Turns on/off the power for the selected zone.

5 VOLUME
Adjusts the volume or mutes the audio output for the selected zone. You can also select the increments used for volume adjustment.

6 RELOAD
Reloads the current status of the unit.

- Multi-zone volume adjustment is not available when an external amplifier is used.

Settings screen



① Rename

Edits the network name (the unit's name on the network) or the name of each zone. Click "APPLY" to apply the changes to the unit.

IP Address

Configures the network parameters (such as IP address). Click "APPLY" to apply the changes to the unit.

MAC Filter

Sets the MAC address filter to limit access to the unit from the network devices. Click "APPLY" to apply the changes to the unit.

Auto Reload

Enables/disables automatic reloading. When "Auto Reload" is "On" (enabled), the web control screen reloads the status of the unit every 5 seconds.

Network Standby

Enables/disables the network standby function.

Backup/Recovery

Creates a backup of the unit's settings on the PC or restores the settings from the backup.

Firmware Update

Updates the firmware of the unit by using the firmware you have downloaded on the PC. Follow the on-screen instructions to start the firmware update.

Create Link

Creates a shortcut link to the desired control screen.

Tips

Displays tips for use of the web control.

② BACK

Moves to the top menu screen.

③ RELOAD

Reloads the current status of the unit.

Note

- Do not operate the unit during the recovery process, as this may result in the incorrect recovery of the settings. When the recovery finishes, click "OK" to set the unit to standby mode.
- The backup does not contain user information (such as user account and password) or unit-specific information (such as MAC address and IP address).

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Information about software

This product uses the following free software.

For information (copyright, etc) about each software, read the original sentences stated below.

About ASN.1 object dumping code

ASN.1 object dumping code, copyright Peter Gutmann <pgut001@cs.auckland.ac.nz>, based on ASN.1 dump program by David Kemp <dpkemp@missi.ncsc.mil>, with contributions from various people including Matthew Hamrick <hamrick@rsa.com>, Bruno Couillard <bcouillard@chrysalis-its.com>, Hallvard Furuseth <h.b.furuseth@usit.uio.no>, Geoff Thorpe <geoff@raas.co.nz>, David Boyce <d.boyce@isode.com>, John Hughes <john.hughes@entegrity.com>, Life is hard, and then you die <ronald@trustpoint.com>, Hans-Olof Hermansson <hans-olof.hermansson@postnet.se>, Tor Rustad <Tor.Rustad@bbs.no>, Kjetil Barvik <kjetil.barvik@bbs.no>, James Sweeny <jsweeny@us.ibm.com>, and several other people whose names I've misplaced.

This code grew slowly over time without much design or planning, with features being tacked on as required.

It's not representative of my normal coding style.

About FLAC codec Library

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